YÖS
HAZIRLIK
SERİSİ

YÖS
DENEME SINAVLARI
Trial Exams

YENİ SINAV
SİSTEMİNE UYGUN

WRITTEN FOR
THE NEW EXAM
SYSTEM

PUZA
YAYINLARI

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ÖNSÖZ

YÖS Hazırlık Serisi kitaplarımızın beşincisi olan YÖS Deneme Sınavları kitabımız, 20 adet 80 Soruluk YÖS Sınavı ve 5 adet 100 soruluk deneme sınavından oluşmaktadır. Deneme sınavlarındaki sorular son yıllarda YÖS sınavlarında yapılan değişiklikler göz önünde bulundurularak hazırlanmıştır. YÖS Hazırlık Serisi kitaplarımızdan, Matematik 1, Matematik 2, Geometri ve IQ kitaplarındaki konuları özümseyip testleri bitirdikten sonra deneme sınavlarını çözmeye başlarsanız kitabımızdan maksimum verimi almış olursunuz. Deneme sınavlarını çözerken sınav için belirtilen süreyi aşmamaya ve sınavı uyguladığınız yerin sessiz olmasına özen gösterin.

Değerli öğretmenlerimize ve sevgili öğrencilerimize yararlı olması dileğiyle...

FOREWORD

Our "YÖS Trial Examinations Book" is the fifth one of our YÖS Preparation Series books. It consists of 20 YÖS Examinations, each of which has 80 questions and includes 5 trial examinations, each of which has 100 questions. The questions in the trial examinations have been prepared by taking the recent changes made for YÖS examinations into consideration. If you start solving the questions in the trial examinations after comprehending the topics in Mathematics 1, Mathematics 2, Geometry, and IQ books and completing the tests, you will get maximum benefit from your studies. While solving the questions in trial examinations, take great pains not to exceed given time limit and make sure that the place where you practice is quiet.

May it be beneficial to our precious teachers and dear students...

Uğur PUZA

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DENEME SINAVI 01
TRIAL EXAM 01

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1.

TAKİP	⇒	☒□▲△✶ ⦸△✦△✹
TAFRA		☒□✶✦□ ✹□▣△☒
ŞİRİN		⦸□▣△☒
ŞAHİT		
NAHİT		

⇒ TAKİP = ?

A) ☒□▲△✶ B) ⦸△✦△✹

C) ☒□✶✦□ D) ✹□▣△☒

E) ⦸□▣△☒

2.

BARİKA	⇒	▣△✶□☒△ ⦿△▣☒△⦸
RİKKAT		✶△▣▲■△ ▣▲■■△□
PARTAL		■△⦸⦿△■
KALPAK		
RABITA		

⇒ BARİKA = ?

A) ▣△✶□☒△ B) ⦿△▣☒△⦸

C) ✶△▣▲■△ D) ▣▲■■△□

E) ■△⦸⦿△■

3.

KASA	⇒	✶△□△ ✦△▲△
ÇAKA		▲△✶△ ✹△□△
YARA		✂△■△
TASA		
MAÇA		

⇒ YARA = ?

A) ✶△□△ B) ✦△▲△

C) ▲△✶△ D) ✹△□△

E) ✂△■△

4.

$$\begin{array}{r} AA \\ \times\ \ A \\ \hline BB \end{array} \qquad \begin{array}{r} BC4 \\ -\ 1BA \\ \hline D61 \end{array}$$

⇒ C = ? ; D = ?

A) 5 ; 7 B) 3 ; 6 C) 5 ; 8

D) 4 ; 7 E) 4 ; 8

5.

$$\begin{array}{r} A3B \\ \times\ \ 11 \\ \hline \cdots \\ +\ \cdots \\ \hline 257B \end{array}$$

⇒ A = ? ; B = ?

A) 1 ; 3 B) 2 ; 5 C) 4 ; 3

D) 1 ; 4 E) 2 ; 4

6. I. $x^3 \blacklozenge y = 2x + \frac{2y}{3}$

II. $x \blacktriangle y^2 = \frac{x^2}{4} - y$

III. $(64 \blacklozenge 9) \blacktriangle 25 = ?$

Yukarıdaki iki eşitlik ✦ ve ▲ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions ✦ and ▲ are unchanged. What is the solution of the third equation?

A) 54 B) 49 C) 44 D) 42 E) 36

7. I. 169 ▲ → 13
II. 36 ▲ → 6
III. 72 ● → 36
IV. 112 ● → 56
V. (4 ▲ + 256 ▲) ● → ?

Yukarıdaki eşitlikler ● ve ▲ işaretlerinin görevlerini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the functions of ● and ▲ are unchanged. What is the solution to the last equation?

A) 4 B) 6 C) 8 D) 9 E) 10

8. I. 11 ■ 9 → 8
II. 2 ■ 1 → 1
III. 7 ■ 4 → 27
IV. 12 ■ 8 → ?

Yukarıdaki eşitlikler ■ işaretinin görevini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ■ is unchanged. What is the solution to the last equation ?

A) 64 B) 36 C) 12 D) 4 E) 2

9.

+	x	y	z
x	x^2		
y		$\frac{y^2}{2}$	
z			$\frac{y}{2}$

$\Rightarrow x + y + z = ?$

Yukarıdaki toplama tablosunda x, y ve z harfleri belli birer sayının yerine kullanılmıştır. Buna göre x + y + z kaçtır?

In the summation table above, the letters x, y and z each stand for a specific number. What is the value of x+y+z ?

A) 5 B) 7 C) 9 D) 11 E) 12

10.

x	K	L	M
K		3 · M	
L			12 · K
M	98		

$\Rightarrow L = ?$

Yukarıdaki çarpma tablosunda K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre L kaçtır?

In the multiplication table above, the letters K, L and M each stand for a specific number. What is the value of L?

A) 2 B) 3 C) 4 D) 6 E) 8

11.

+	a	b	c
a			
b		c	

x	a	b	c
a	b	c	
b			

$\Rightarrow \frac{b^2+c^2}{a \cdot c} = ?$

Yukarıdaki toplama ve çarpma tablolarında a, b ve c bel birer sayının yerine kullanılmıştır. Buna göre, $\frac{b^2+c^2}{a \cdot c} =$ kaçtır?

In the summation and multiplication tables above a, b and c eac stand for a specific numeral. What is the value $\frac{b^2+c^2}{a \cdot c} = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

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12.

I.  = 35

II.  = 45

III.  = ?

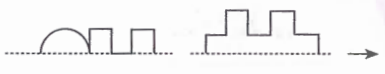
I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III, in accorance with the relationship established in I and II?

A) 36 B) 48 C) 60 D) 72 E) 96

13.

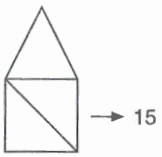
I. 

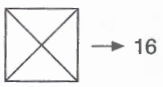
II.  ?

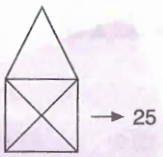
A)  B)  C) 

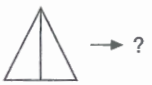
D)  E) 

14.

I. 

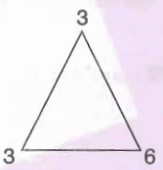
II. 

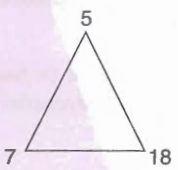
III. 

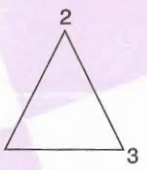
IV. 

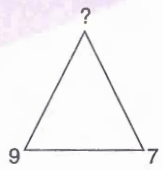
A) 4 B) 6 C) 9 D) 12 E) 15

15.

I. 

II. 

III. 

IV. 

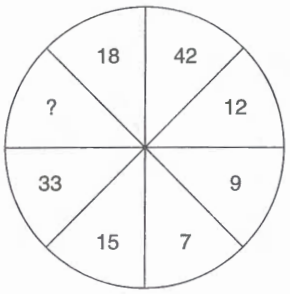
A) 3 B) 4 C) 5 D) 6 E) 7

16.

23	14	12	18	22	43
25	15	27	?	28	

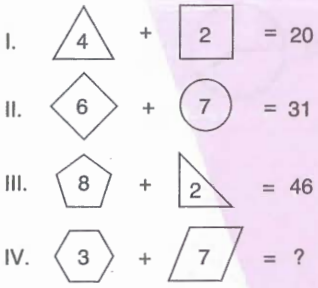
A) 24 B) 32 C) 36 D) 38 E) 40

17.



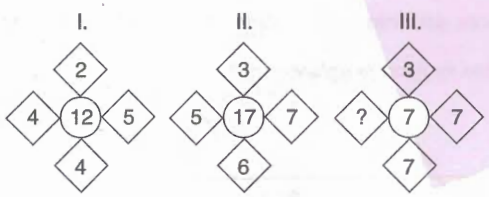
A) 18 B) 21 C) 24 D) 28 E) 31

18.



A) 36 B) 39 C) 46 D) 49 E) 52

19.

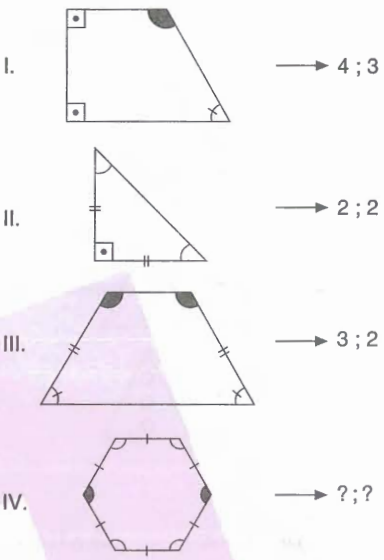


I. ve II. şekilde belirlenen kurala göre III. şekildeki soru işaretinin yerine hangi sayı gelmelidir?

Given the relationship above which one of the followings do te question mark stand for?

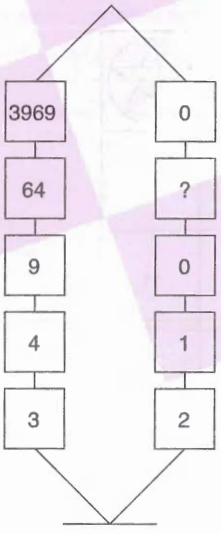
A) 4 B) 5 C) 6 D) 7 E) 8

20.



A) 6 ; 6 B) 4 ; 2 C) 2 ; 1 D) 1 ; 4 E) 1 ; 2

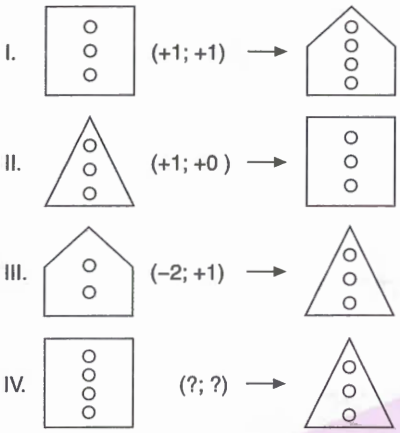
21.



A) – 2 B) – 1 C) 0 D) 1 E) 2

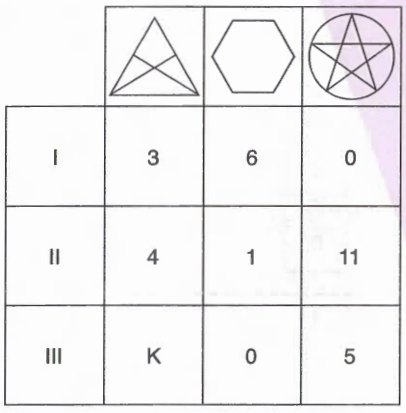
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22.



A) – 1; + 1 B) – 1; – 2 C) – 1; – 1
D) + 1; + 1 E) + 1; – 2

23.



I	3	6	0
II	4	1	11
III	K	0	5

⇒ K = ?

Yukarıdaki tabloda K yerine hangi sayı gelmelidir?

Which one of the followings do K stand for?

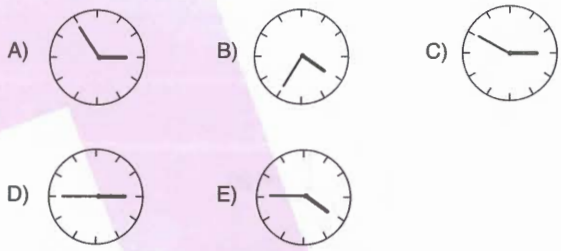
A) 1 B) 2 C) 3 D) 4 E) 5

24.

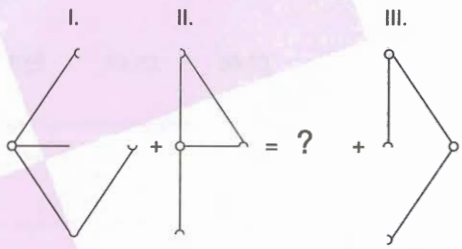


Verilen şekil dizisinde soru işareti yerine getirilmesi gereken şekli bulunuz?

Find the figure which the question mark stand for in the figure sequence given?

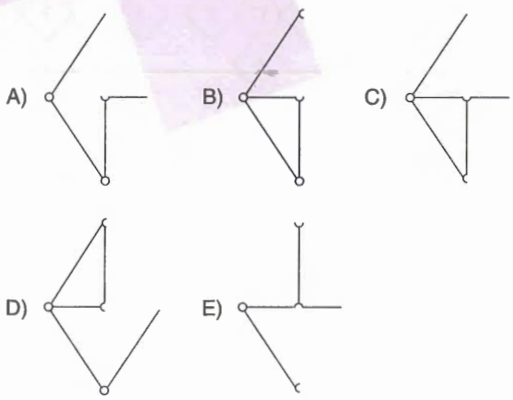


25.

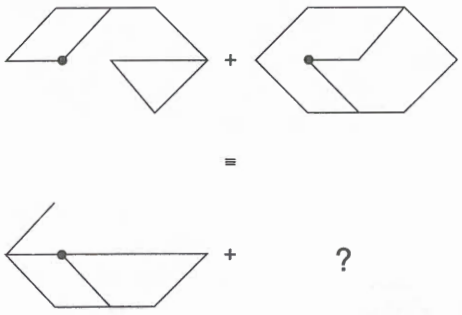


Soru işaretinin yerine getirilmesi gereken şekli bulunuz?

Find the figure to replace the question mark?

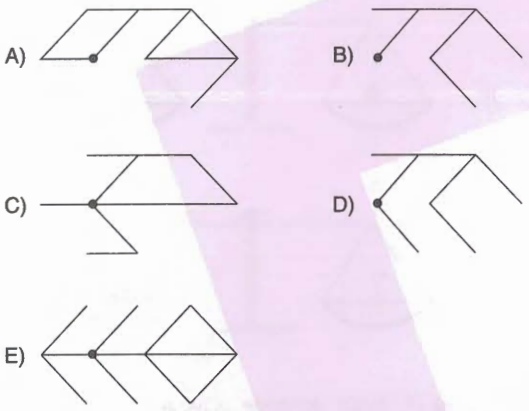


26.

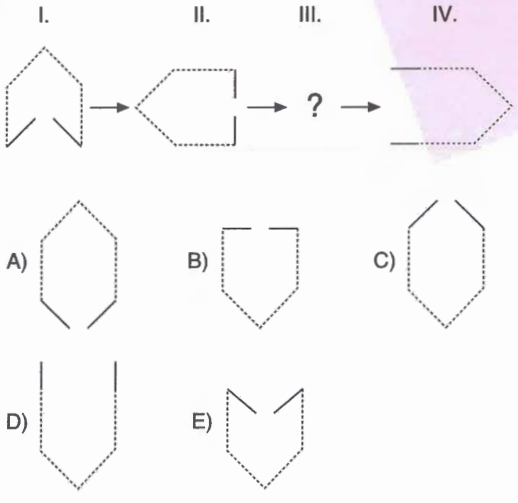


Soru işaretinin yerine getirilmesi gereken şekli bulunuz?

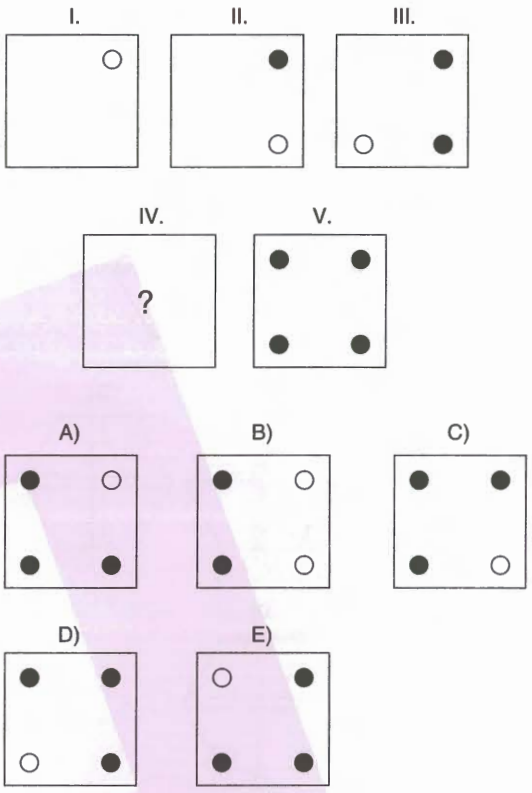
Find the figure to replace the question mark ?



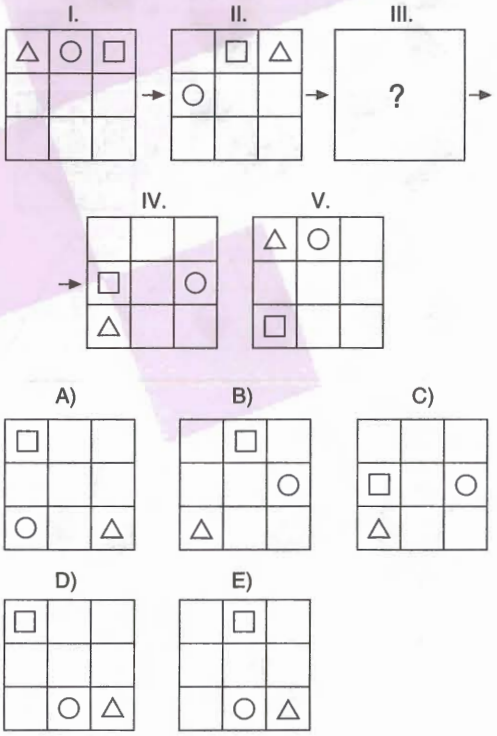
27.



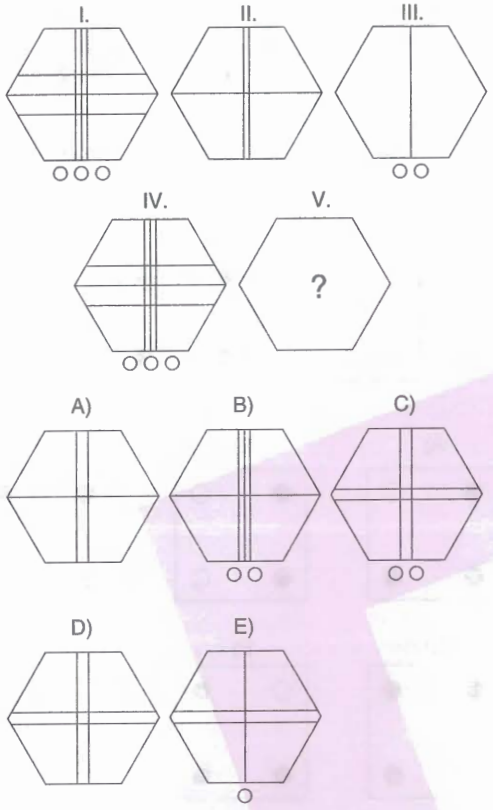
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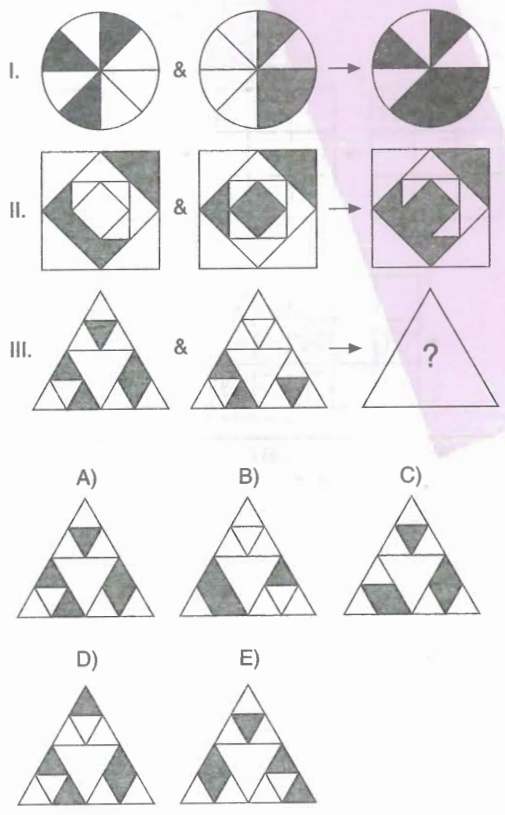
29.



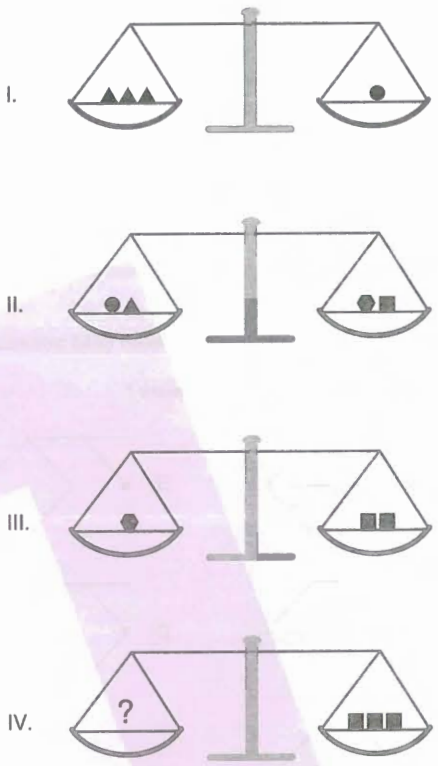
30.



31.



32.



I, II ve III. terazi dengede olduğuna göre, IV. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

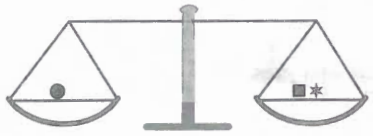
In accordance with I, II and III, which group of the weights below, when placed on the ampty tray in IV, will make the scale balance?

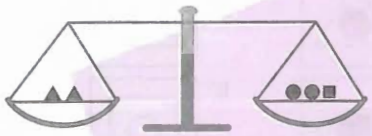
A) ●⬣ B) ⬣⬣ C) ▲▲▲▲

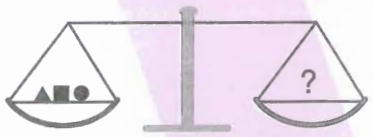
D) ●● E) ■●

33.

I. 

II. 

III. 

IV. 

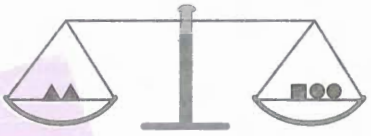
I, II ve III. terazi dengede olduğuna göre, IV. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I, II and III, which group of the weights below, when placed on the ampty tray in IV, will make the scale balance?

A) 4·✶ B) 6·✶ C) 8·✶ D) 9·✶ E) 11·✶

34.

I. 

II. 

III. 

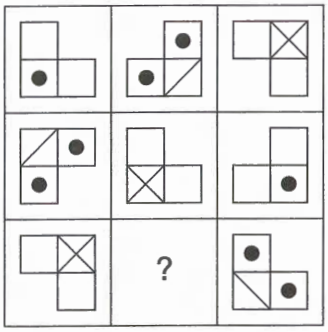
I ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

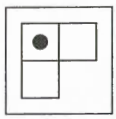
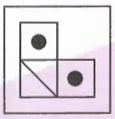
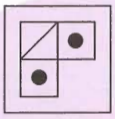
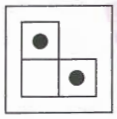
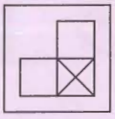
In accordance with I and II, which group of the weights below, when placed on the ampty tray in III, will make the scale balance?

A) ■■■ B) ■■● C) ●●●● D) ■▲● E) ▲▲●

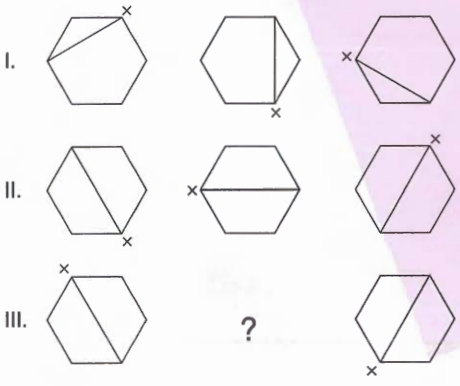
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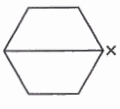
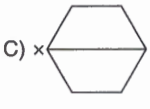
35.



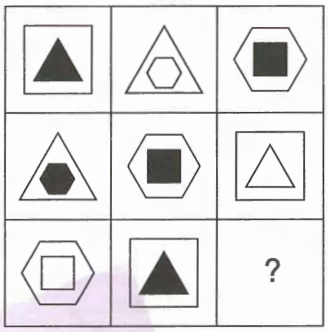
A) 
B) 
C) 
D) 
E) 

36.



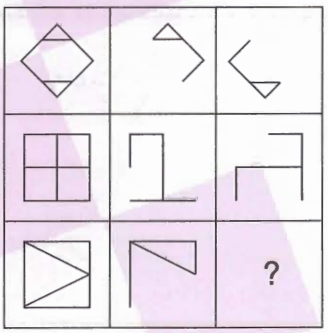
A) 
B) 
C) 
D) 
E) 

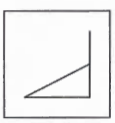
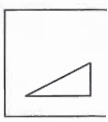
37.



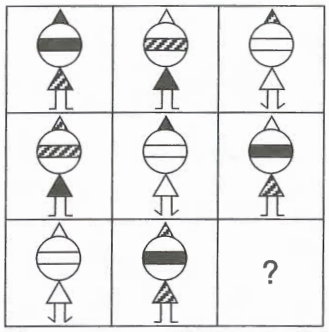
A) 
B) 
C) 
D) 
E) 

38.



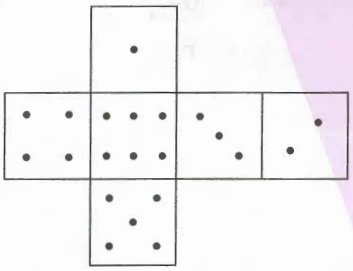
A) 
B) 
C) 
D) 
E) 

39.



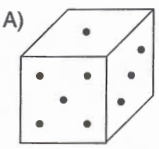
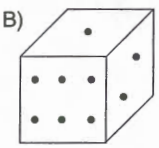
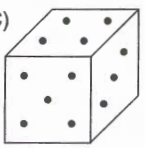
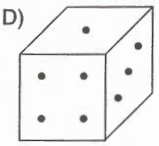
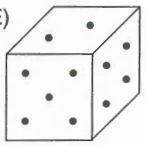
A) 
B) 
C) 
D) 
E) 

40.

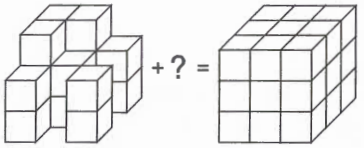


Yukarıda açılımı verilmiş küpün kapalı hali aşağıdakilerden hangisidir?

Which of the followings is the folded form of the cube above ?

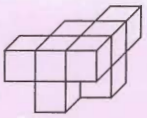
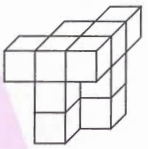
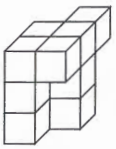
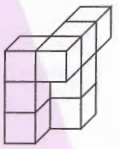
A) 
B) 
C) 
D) 
E) 

41.

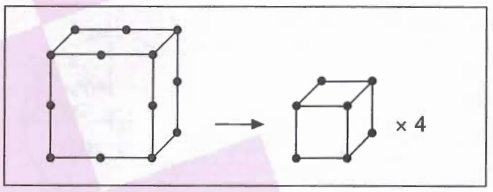


Eşitliğin sağlanması için soru işareti yerine aşağıdaki şekillerden hangisi gelmelidir?

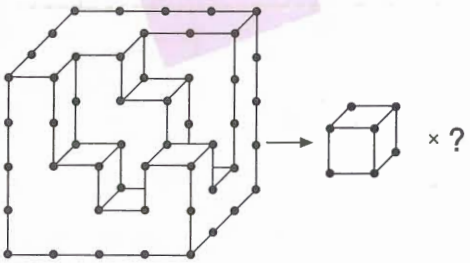
Instead of question mark which of the following figure should stand?

A) 
B) 
C) 
D) 
E) 

EXAMPLE

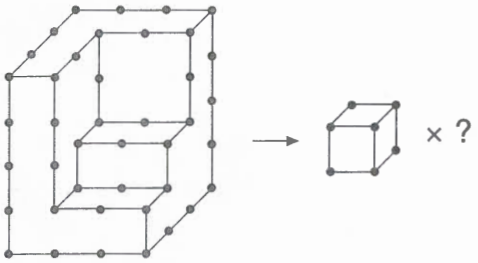


42.



A) 35 B) 36 C) 37 D) 38 E) 39

43.



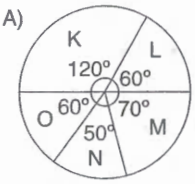
A) 30 B) 29 C) 28 D) 27 E) 26

44.

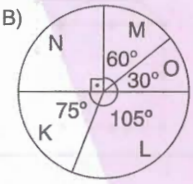
K = 5
L = 7
M = 4
N = 6
O = 2

⇒ ?

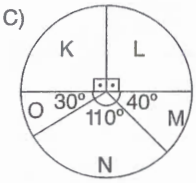
A)



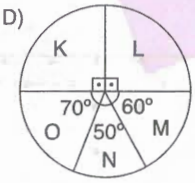
B)



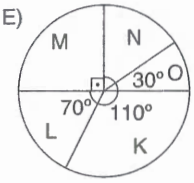
C)



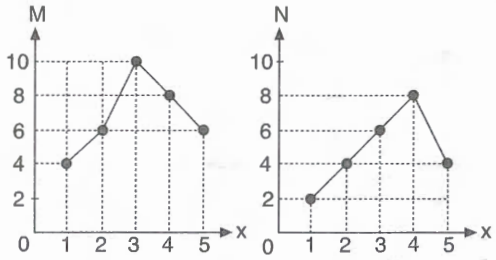
D)



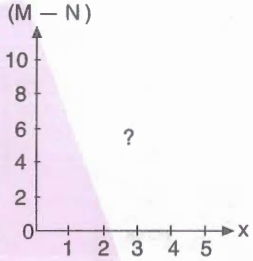
E)



45.

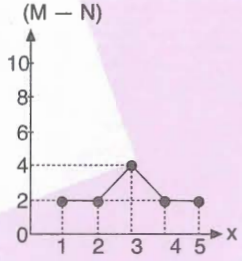


(M — N)



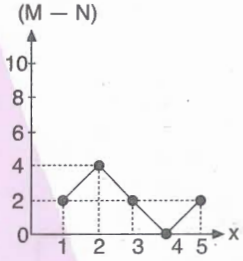
A)

(M — N)



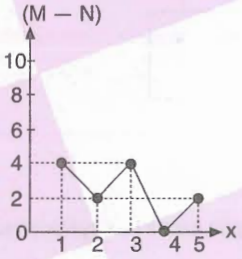
B)

(M — N)



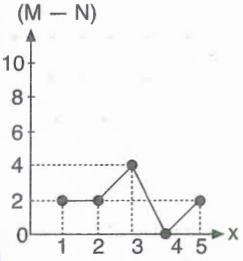
C)

(M — N)



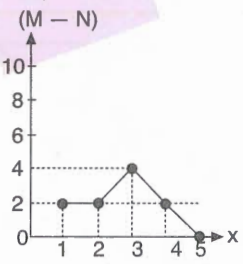
D)

(M — N)



E)

(M — N)



46. $[(0,\overline{6})+(0,5\overline{6})]\cdot\frac{30}{37}=?$

A) 1 B) $\frac{1}{6}$ C) $\frac{1}{2}$ D) 2 E) 3

47. $x<0$ $a=\frac{21}{x}$ $b=\frac{32}{x}$ $c=\frac{43}{x}$

$\Rightarrow$ a, b, c ? > ? > ?

A) c > a > b B) a > c > b C) b > a > c
D) a > b > c E) c > b > a

48. $x<0$

$|4x-|1-2x|+|3x||=?$

A) x − 1 B) 1 − x C) 3x − 1
D) 1 − 3x E) 2x − 1

49. $(4)^{3x-4}\cdot(16)^{x+1}=\frac{(64)^{1-x}}{4}\Rightarrow x^{1-x}=?$

A) $\frac{1}{2}$ B) $\frac{\sqrt{2}}{2}$ C) $\sqrt{2}$
D) 2 E) 4

50. $\left.\begin{matrix}x=\sqrt{4+2\sqrt{3}}\\ y=\sqrt{4-2\sqrt{3}}\end{matrix}\right\}\Rightarrow\sqrt{x\cdot y}=?$

A) 1 B) 2 C) $\sqrt{2}$ D) 3 E) $3\sqrt{2}$

51. $\left(\sqrt{8:\sqrt{8:\sqrt{8:\cdots}}}\right)\cdot\left(\sqrt{12+\sqrt{12+\sqrt{12+\cdots}}}\right)=?$

A) 2 B) 4 C) 6 D) 8 E) 12

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52. $\left.\begin{array}{l}\frac{a}{b}=\frac{c}{d}=5\\ \frac{3a-2c}{3b-8}=5\end{array}\right\} \Rightarrow c=?$

A) 4 B) 5 C) 10 D) 20 E) 25

53. $f(x+3)=\frac{2x-1}{x+4} \Rightarrow f(3x-1)=?$

A) $\frac{2x-3}{x+1}$ B) $\frac{2x-3}{x}$ C) $\frac{x+3}{2x+1}$

D) $\frac{2x}{x+3}$ E) $\frac{x-3}{x+2}$

54. $\frac{a^3+b^3}{a-b}:\frac{a^2-ab+b^2}{5a-5b}=75$

$\Rightarrow a+b=?$

A) 12 B) 14 C) 15 D) 16 E) 18

55. $a+b=10$

$\frac{1}{a}+\frac{1}{b}=\frac{5}{2}$

$\Rightarrow a^2+b^2=?$

A) 98 B) 92 C) 82 D) 80 E) 72

56. $x^2+6x+m+4=0$

$S.S=\{x_1, x_2\}$

$x_1=5\cdot x_2$

$\Rightarrow m=?$

A) -2 B) -1 C) 0 D) 1 E) 2

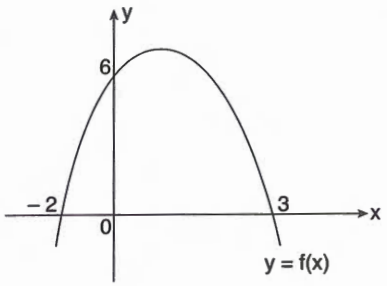
57. $x^2+4x+m=0$

$2x_1-3x_2=7$

$\Rightarrow m=?$

A) -3 B) -1 C) 1 D) 2 E) 3

58.



$\Rightarrow y = f(x) = ?$

A) $y = f(x) = -x^2 - x + 1$

B) $y = f(x) = -2x^2 + 3x + 6$

C) $y = f(x) = -x^2 + x + 6$

D) $y = f(x) = -x^2 + 2x + 6$

E) $y = f(x) = -x^2 + 6$

59. $P(x + 1) = 2x^2 - 3x + 7$

$\Rightarrow P(x - 1) = ?$

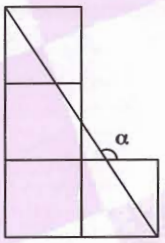
A) $2x^2 - 8$ B) $x^2 - 3x + 5$ C) $2x^2 - 11x + 21$

D) $2x^2 + x + 9$ E) $2x^2 + 7x - 9$

60. $\frac{(n-2)!}{(n+1)!} = \frac{1}{210}$ $\Rightarrow n = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

61.

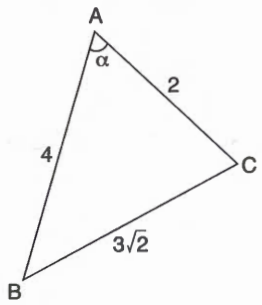


$\Rightarrow \tan\alpha = ?$

A) $-\frac{3}{2}$ B) $-\frac{2}{3}$ C) $-\frac{3}{4}$

D) $\frac{2}{3}$ E) $\frac{3}{2}$

62.



$|AB| = 4$ br

$|AC| = 2$ br

$|BC| = 3\sqrt{2}$ br

$m(\widehat{BAC}) = \alpha$

$\Rightarrow \cos\alpha = ?$

A) $\frac{2}{3}$ B) $\frac{1}{2}$ C) $\frac{1}{4}$ D) $\frac{1}{8}$ E) $\frac{1}{16}$

63. $0 < x < \frac{\pi}{2}$

$\sin(\arcsin(x)) + \operatorname{arccot}(\tan(90° - x)) = \frac{\pi}{2}$

$\Rightarrow x = ?$

A) $\frac{\pi}{12}$ B) $\frac{\pi}{6}$ C) $\frac{\pi}{4}$ D) $\frac{\pi}{3}$ E) $\frac{5\pi}{12}$

64. $\frac{1}{\log_4 30} + \frac{2}{\log_5 30} + \frac{1}{\log_3 \sqrt{30}} = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

65. $\log_3 \sqrt{x} + \sqrt{\log_3 x} = \frac{15}{2}$

$\Rightarrow$ S.S = ?

A) $\{3^9\}$ B) $\{3, 5\}$ C) $\{9, 25\}$

D) $\{3, 9\}$ E) $\{3^9, 3^{25}\}$

66. $\ln 9 \cdot \log_3 \sqrt[3]{e} = ?$

A) $\frac{1}{9}$ B) $\frac{1}{3}$ C) $\frac{2}{3}$ D) 1 E) 3

67. $\lim\limits_{x\to 1} \dfrac{x^4+3x^2-2x-2}{x^3-1} = ?$

A) 3 B) $\frac{8}{3}$ C) $\frac{13}{3}$ D) 2 E) $\frac{7}{4}$

68. $\lim\limits_{x\to \infty}\left(\dfrac{\cos x}{x} + \dfrac{3x^3}{2x^3+1} + 2^{\frac{1}{x}}\right) = ?$

A) $\frac{7}{2}$ B) $\frac{1}{2}$ C) $\frac{3}{2}$ D) 2 E) $\frac{5}{2}$

69. $\left.\begin{matrix} y=2t^2+2t \\ t=3x \end{matrix}\right\} \Rightarrow \dfrac{dy}{dx} = ?$

A) $9x^2+3$ B) $9x^2$ C) $6x^2+6x$
D) $18x^2+3$ E) $36x+6$

70. $f(x) = \ln(\cos^2 x)$

$\Rightarrow f'\left(\frac{\pi}{4}\right) = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

71. $f'(x) = 3x^2 + 2x + 1$

$f(1) = 7$

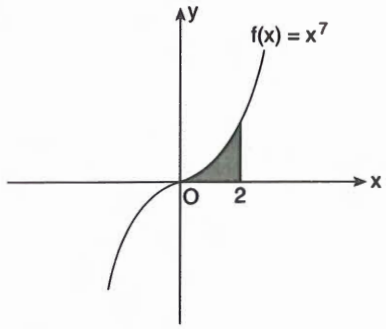
$\Rightarrow f(2) = ?$

A) 12 B) 15 C) 16 D) 17 E) 18

72. $\int_0^1 (x^2+1)^3 \cdot 2x\,dx = ?$

A) 5 B) $\frac{17}{4}$ C) 4 D) $\frac{15}{4}$ E) 3

73.



Taralı Alan (*Shaded Area*) = ?

A) 16 B) 24 C) 32 D) 48 E) 64

74. $A = \begin{bmatrix} 5 & 2 \\ 2 & 1 \end{bmatrix}$

$\Rightarrow A^{-1} = ?$

A) $\begin{bmatrix} -5 & 2 \\ 2 & -1 \end{bmatrix}$ B) $\begin{bmatrix} 1 & -2 \\ -2 & 5 \end{bmatrix}$ C) $\begin{bmatrix} -1 & 2 \\ 2 & -5 \end{bmatrix}$

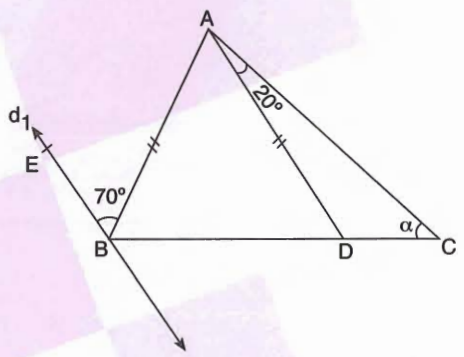
D) $\begin{bmatrix} -1 & 2 \\ -2 & -5 \end{bmatrix}$ E) $\begin{bmatrix} 1 & -2 \\ -2 & -5 \end{bmatrix}$

75. $\begin{bmatrix} 2 & 1 \\ 1 & 0 \\ 3 & -1 \end{bmatrix} \cdot \begin{bmatrix} -1 & 1 \\ 2 & 0 \end{bmatrix} = ?$

A) $\begin{bmatrix} 0 & 2 \\ -1 & -1 \\ -5 & -2 \end{bmatrix}$ B) $\begin{bmatrix} 0 & 2 \\ -1 & 1 \end{bmatrix}$ C) $\begin{bmatrix} -1 & 1 \\ -5 & 3 \end{bmatrix}$

D) $\begin{bmatrix} 0 & 2 \\ -1 & 1 \\ -5 & 3 \end{bmatrix}$ E) $\begin{bmatrix} -5 & 3 \\ -1 & 1 \\ 0 & 2 \end{bmatrix}$

76.



$d_1 \,//\, [AD]$

$|AB| = |AD|$

$m(\widehat{DAC}) = 20^\circ$

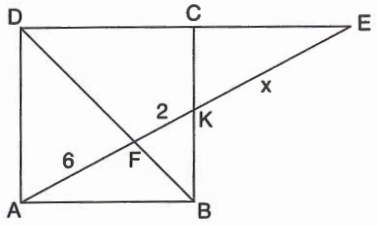
$m(\widehat{EBA}) = 70^\circ$

$m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 15 B) 20 C) 25 D) 35 E) 40

77.



ABCD kare (*square*)

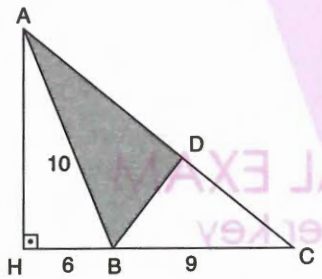
$|FK| = 2$ br

$|AF| = 6$ br

$\Rightarrow |EK| = x = ?$

A) 16 B) 12 C) 10 D) 8 E) 6

78.



$|AB| = 10$ br

$|BC| = 9$ br

$|HB| = 6$ br

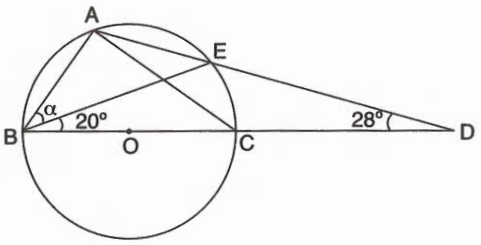
$[AH] \perp [HC]$

$|AD| = 2|DC|$

$\Rightarrow A(BDA) = ?$

A) 12 B) 18 C) 24 D) 30 E) 36

79.



O Merkez (*center*)

$m(\widehat{ADB}) = 28°$

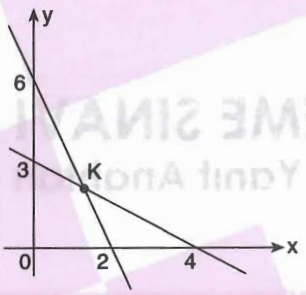
$m(\widehat{EBD}) = 20°$

$m(\widehat{ABE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 18 B) 19 C) 20 D) 22 E) 24

80.



K(x, y)

$\Rightarrow x + y = ?$

A) $\frac{7}{2}$ B) $\frac{10}{3}$ C) 4 D) 5 E) $\frac{16}{3}$

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DENEME SINAVI 01 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	C	E	A	E	C	D	A	B	D	D	B	A	B	B	C	C	C	A	E

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	C	B	D	C	B	C	E	D	A	A	C	D	C	A	A	A	C	A	E

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
B	C	E	B	D	A	D	D	B	C	D	D	B	C	B	D	E	C	C	C

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
A	D	C	B	A	C	B	E	E	A	E	D	C	B	D	D	A	C	D	B

DENEME SINAVI 02
TRIAL EXAM 02

1.
BAKIR
NAZIR
ÇAKIL
KAZAK
NAZAR
⇒ NAZIR = ?

A) ◈○◉●■ B) ▲○◉○▲ C) ◈○◉○■
D) □○▲●▣ E) △○▲●■

2.
SAY
TAS
YAY
KAS
SAM
⇒ SAM = ?

A) ●□● B) ★□▲ C) ▲□○
D) △□▲ E) ▲□●

3
TAM
HAM
TUH
SAM
MAH
⇒ HAM = ?

A) 873 B) 546 C) 573
D) 376 E) 673

4.
1 2 3
4 3 1
2 3 4
4 1 2
2 1 4
⇒ 234 = ?

A) ERİ B) ESİ C) İRS
D) İSE E) SER

5.

$$\begin{array}{r} ABC \\ +\ DBA \\ \hline 971 \end{array} \qquad \begin{array}{r} ABC \\ -\ DBA \\ \hline 399 \end{array} \Rightarrow DBA = ?$$

A) 436 B) 387 C) 286
D) 257 E) 137

6.

$$\begin{array}{r|l} A\,1\,B\,A & C\,B \\ -\ 1\,8\,C & \hline & C\,7 \\ \hline 0\,3\,A\,A & \\ -\ \ 3\,A\,A & \\ \hline 0\,0\,0 & \end{array} \Rightarrow \frac{A+B\times C}{A} = ?$$

A) 6 B) 8 C) 9 D) 11 E) 13

7.

$$\begin{array}{r} K\,L\,8 \\ \times\quad L\,K \\ \hline C\,0\,L\,L \\ +\ C\,K\,9\,2 \\ \hline C\,L\,9\,6\,L \end{array} \quad \Rightarrow \frac{C+K+L}{C}=?$$

A) 6 B) 8 C) 9 D) 11 E) 13

8.

$$\begin{array}{r} 2\,K\,L \\ L\,K\,K \\ +\ K\,5\,3 \\ \hline 1\,K\,K\,K \end{array} \quad \Rightarrow K+L=?$$

A) 4 B) 8 C) 9 D) 11 E) 12

9. I. $a \blacksquare b \rightarrow \frac{a^2+b}{2}$

II. $a \bullet b \rightarrow \frac{2a \cdot b}{3}$

III. $(1 \blacksquare 3) \bullet (2 \blacksquare 2) = ?$

Yukarıdaki iki eşitlik ● ve ■ işaretlerinin görevlerini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ● and ■ are unchanged. What is the solution to the third equation?

A) 2 B) 4 C) 6 D) 8 E) 10

10. I. $a \blacktriangle b \blacktriangle c = \left[\left(\frac{1}{a}+\frac{1}{c}\right)\cdot\frac{1}{b}\right]+\left[\frac{1}{a\cdot b}+\frac{1}{b\cdot c}\right]$

II. $(2 \blacktriangle 3 \blacktriangle 4) = ?$

Yukarıdaki eşitlik ▲ işaretinin görevini belirtmektedir. Buna göre, ikinci eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the functions of ▲ remains unchanged. What is the solution to the second equation?

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) 1 D) $\frac{1}{3}$ E) 2

11. I. $68 \square 45 = 23$

II. $34 \square 86 = 21$

III. $17 \square 11 = 10$

IV. $36 \square 42 = ?$

Yukarıdaki ilk üç eşitlik □ işaretinin görevini belirtmektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of □ is unchanged. What does the question mark stand for in the fourth equation?

A) 18 B) 17 C) 16 D) 15 E) 14

12. I. $4 \blacksquare 2 \Rightarrow 2; 12$

II. $5 \blacksquare 3 \Rightarrow 2; 16$

III. $8 \blacksquare 5 \Rightarrow 3; 39$

IV. $7 \blacksquare 4 \Rightarrow ?; ?$

Yukarıdaki ilk üç eşitlik ■ işaretinin görevini belirtmektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ■ is unchanged. What does the question mark stand for in the fourth equation?

A) 3; 22 B) 3; 28 C) 3; 33 D) 5; 45 E) 9; 65

13.

x	a	b	c
a		32	72
b			36

$\Rightarrow a \cdot b \cdot c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a·b·c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a·b·c?

A) 128 B) 144 C) 160 D) 212 E) 288

15.

+	a	b	c
a			13
b	16		

x	a	b	c
a		63	36
b			

$\Rightarrow b = ?$

Yukarıdaki toplama ve çarpma tablolarında a, b ve c belli birer sayının yerine kullanılmıştır. Buna göre, b kaçtır?

In the summation and multiplication tables above a, b and c each stand for a specific numeral. What is the value b?

A) 8 B) 7 C) 4 D) 2 E) 1

14.

+	a	b	c
a	$\frac{c}{2}$		
b		c	
c			

x	a	b	c
a		2·c	
b			
c	18·b		

$\Rightarrow a + b + c = ?$

Yukarıdaki toplama ve çarpma tablolarında a, b ve c belli birer sayının yerine kullanılmıştır. Buna göre, a + b + c kaçtır?

In the summation and multiplication tables above a, b and c each stand for a specific numeral. What is the value a + b + c ?

A) 24 B) 26 C) 30 D) 38 E) 44

13.

+	a	b	c
a		7	
b		5a	8a
c			

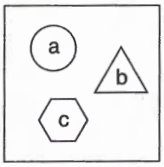
$\Rightarrow c = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c kaçtır?

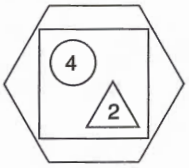
In the summation table above, the letters a, b and c each stand for a specific number. What is the value of c?

A) 2 B) 5 C) 7 D) 9 E) 11

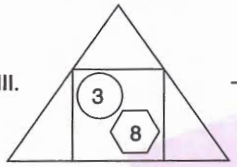
17.

I. 

$\rightarrow \left(2a + b^2 + \frac{c}{2}\right)$

II. 

$\rightarrow$ 6

III. 

$\rightarrow$?

A) 36 B) 64 C) 81 D) 100 E) 121

18.

♂	F	Q	M	S	E
F	R	E	F	Q	E
Q	E	F	Q	E	S
M	F	Q	E	S	E
S	Q	E	S	E	F
E	E	S	E	F	Q

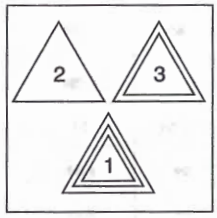
$\Rightarrow$ [(Q ♂ M) ♂ E] ♂ [(S ♂ F) ♂ Q] = ?

Yukarıdaki tabloda ♂ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

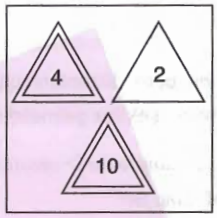
According to the rules of ♂ operation established in the table above, which of the following does the question mark stand for?

A) F B) Q C) M D) S E) E

19.

I. 

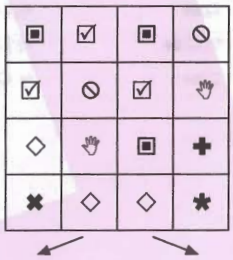
$\rightarrow 2^1 + 1^3 + 3^2$

II. 

$\rightarrow$?

A) 110 B) 112 C) 116 D) 118 E) 122

20.



I

A	
☑	
A	B

II

C	✋
D	C

A = ▣, B = ✚ $\Rightarrow$ C = ?, D = ?

I ve II, yukarıdaki tablonun farklı birer parçasıdır. Buna göre, II'deki C ve D nin yerine aşağıdakilerden hangisi gelmelidir?

I and II are two different parts of the table above. Which of the following do C and D stand for in II?

	C	D
A)	✖	◇
B)	☑	▣
C)	✖	✋
D)	◇	✖
E)	◇	▣

21.

▷			
		L	
			M
			
	K		

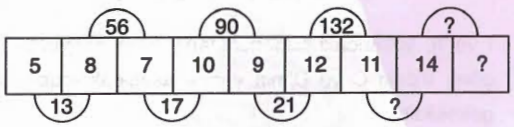
K = ? L = ? M = ?

Yukarıdaki tablo ▷ işlemine göre düzenlenmiştir. Buna göre K, L ve M nin yerine hangi şekiller gelmelidir?

The table above is organized according to the ▷ opeation. Which of the following do K, L and M stand for?

	K	L	M
A)			
B)			
C)			
D)			
E)			

22.



A) 128 – 16 – 25 B) 152 – 13 – 25

C) 182 – 13 – 25 D) 190 – 13 – 22

E) 212 – 25 – 13

23.

821	11	2
576	18	9
384	A	B

⇒ A + B = ?

A) 14 B) 17 C) 19 D) 21 E) 24

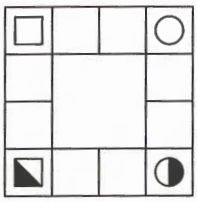
24. I. 624 → 3 II. 987 → 6

III. 693 → 6 IV. 956 → ?

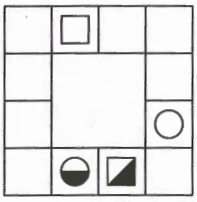
A) 4 B) 5 C) 7 D) 10 E) 15

25.

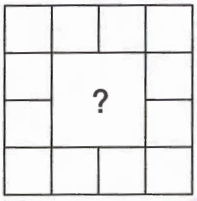
I.



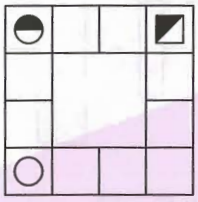
II.



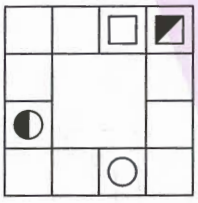
III.



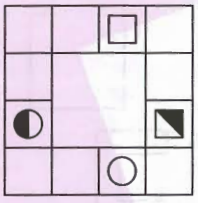
IV.



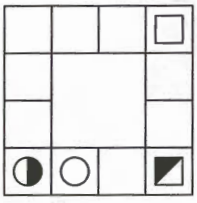
A)



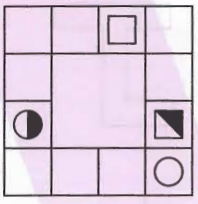
B)



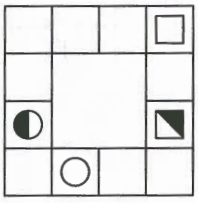
C)



D)

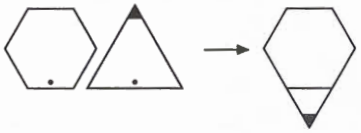


E)



26.

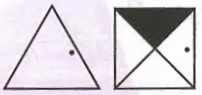
I.



II.



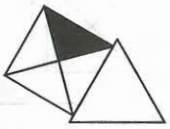
III.



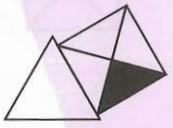
A)



B)



C)



D)

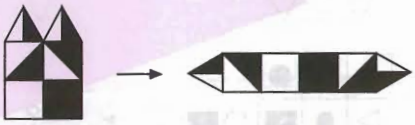


E)

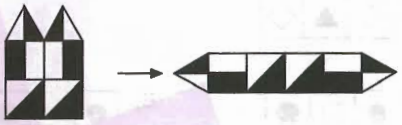


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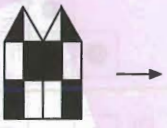
I.



II.



III.



A)



B)



C)



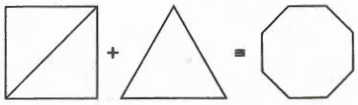
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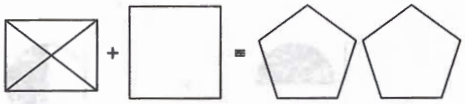


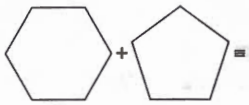
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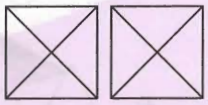
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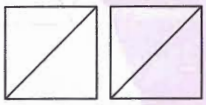
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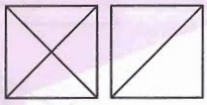
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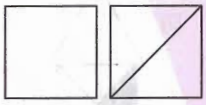
III.  = ?

A) 

B) 

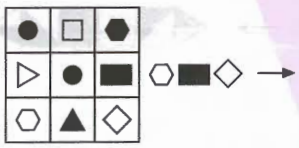
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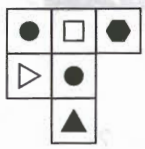
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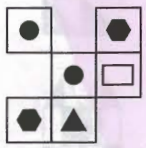
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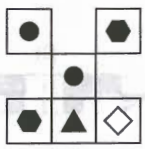
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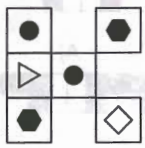
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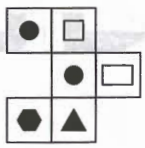
II.  ?

A) 

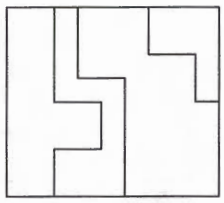
B) 

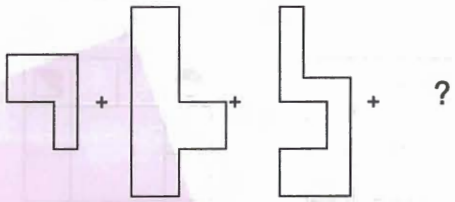
C) 

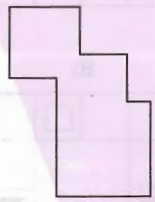
D) 

E) 

30.

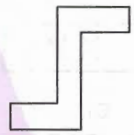


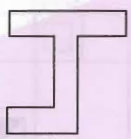
= 

A) 

B) 

C) 

D) 

E) 

31.

I. 

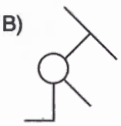
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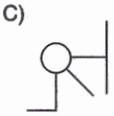
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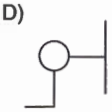
IV. 

V. ?

A) 

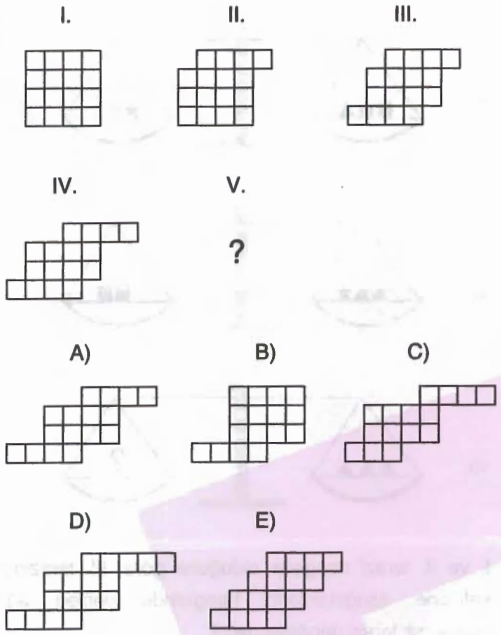
B) 

C) 

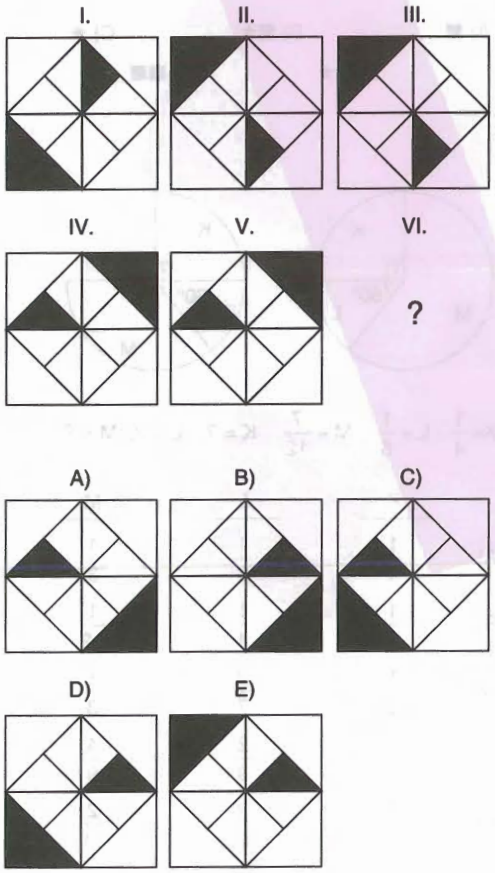
D) 

E) 

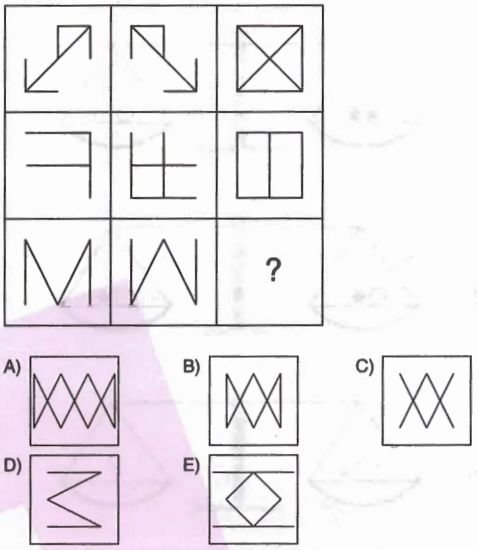
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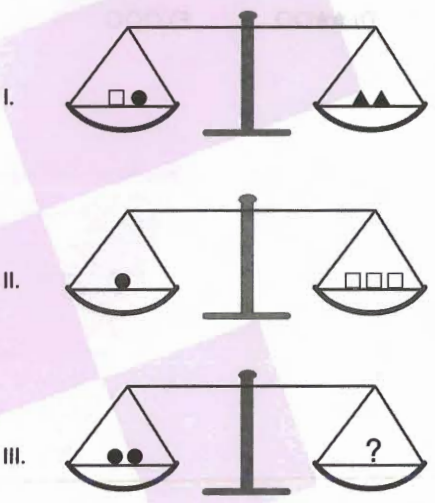
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34.



35.



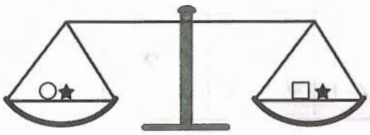
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ▲▲□□ B) ▲▲ C) ▲□□
D) ●●□ E) ●●▲

36.

I. 

II. 

III. 

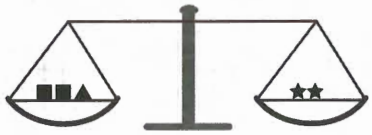
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

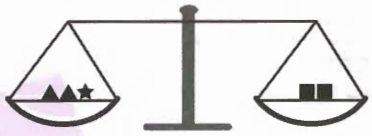
In accordance with I and II which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ★★ B) ○○ C) ○○□□

D) ★★○○ E) ○○○

37.

I. 

II. 

III. 

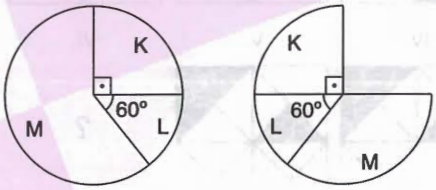
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ■ B) ■★ C) ★

D) ★★ E) ■■

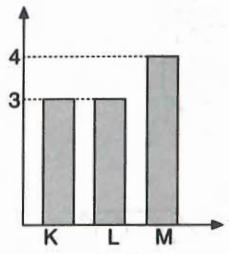
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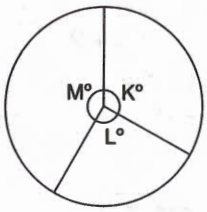


$K=\frac{1}{4}$, $L=\frac{1}{6}$, $M=\frac{7}{12}$ K = ?, L = ?, M = ?

	K	L	M
A)	$\frac{1}{4}$	$\frac{1}{6}$	$\frac{1}{3}$
B)	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{12}$
C)	$\frac{1}{2}$	$\frac{2}{7}$	$\frac{1}{3}$
D)	$\frac{1}{3}$	$\frac{2}{9}$	$\frac{4}{9}$
E)	$\frac{2}{7}$	$\frac{2}{9}$	$\frac{2}{11}$

39.

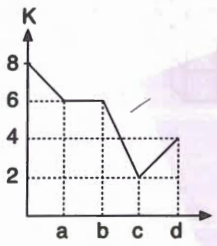


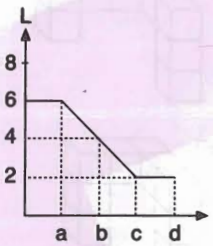


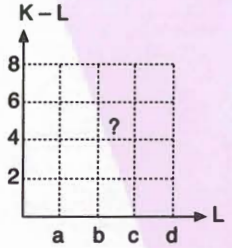
⇒ M = ?

A) 36 B) 72 C) 90 D) 100 E) 144

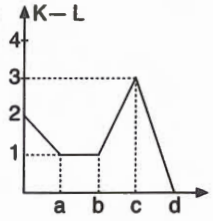
40.



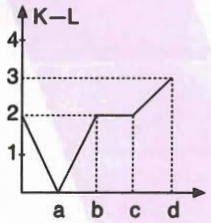




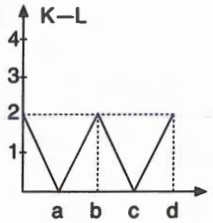
A)



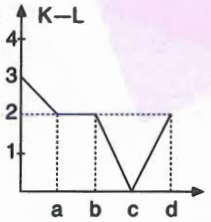
B)



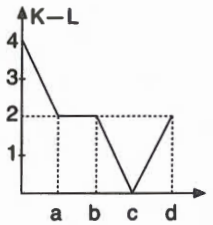
C)



D)



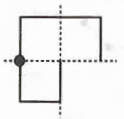
E)



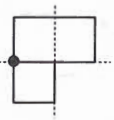
41.



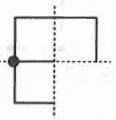
A)



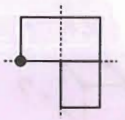
B)



C)



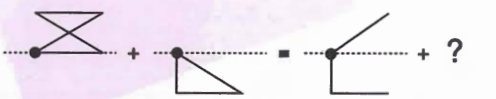
D)



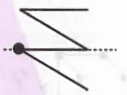
E)



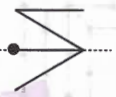
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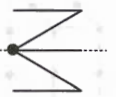
A)



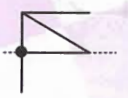
B)



C)



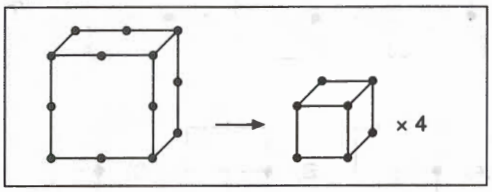
D)



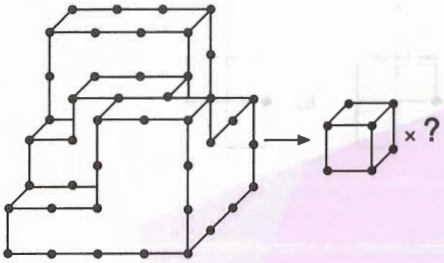
E)



EXAMPLE

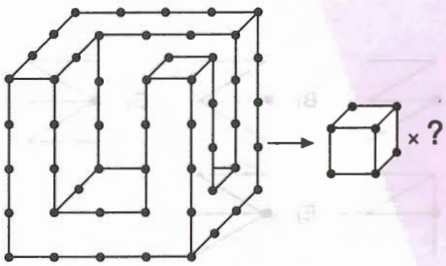


43.



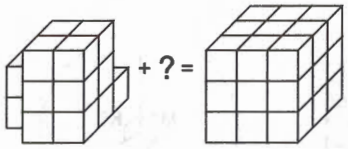
A) 30 B) 31 C) 32 D) 33 E) 34

44.

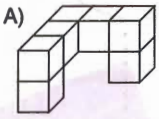


A) 30 B) 31 C) 32 D) 33 E) 34

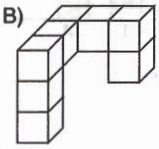
45.



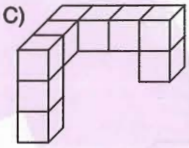
A)



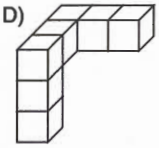
B)



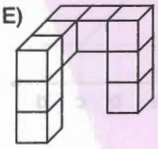
C)



D)



E)



46. $5 - 3 \cdot [4 + 3 \cdot (-2)] = ?$

A) -4 B) 4 C) 6 D) 7 E) 11

47. $x, y, z \in Z$

$2^{x-y} = 3^{y-z}$

$\Rightarrow \dfrac{x+y+z}{x+y} = ?$

A) $\dfrac{3}{2}$ B) 1 C) $\dfrac{1}{2}$ D) $\dfrac{1}{3}$ E) $\dfrac{2}{5}$

48. $30 \cdot (0,4 - \dfrac{1}{2}) = ?$

A) -30 B) -3 C) $0,3$ D) 3 E) 30

49. $\dfrac{(-2)^3 - (-2^4)}{(3)^2 - 2^3} = ?$

A) 16 B) 8 C) 4 D) -2 E) -8

50. $\sqrt{2-\sqrt{3}} - \sqrt{2+\sqrt{3}} = ?$

A) $\sqrt{2}$ B) $\sqrt{3}$ C) $-\sqrt{3}$ D) $-\sqrt{2}$ E) $\sqrt{5}$

51. $\sqrt{5+2\sqrt{6}} - \sqrt{3} = ?$

A) $\sqrt{2}$ B) $\sqrt{3}$ C) $\sqrt{3}-\sqrt{2}$ D) $2\sqrt{3}$ E) $2\sqrt{2}$

52. $\frac{3}{a} = \frac{5}{b}$

$3a + 5b = 68$

$\Rightarrow a = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

53. $5a - 2b + 3c = 8$

$7a - 4b + 6c = 10$

$\Rightarrow a = ?$

A) $\frac{7}{2}$ B) 3 C) $\frac{5}{2}$ D) 2 E) 1

54. $A = \{x \in Z \mid 20 < x < 100,\ x = 5k,\ k \in Z\}$

$\Rightarrow n(A) = ?$

A) 16 B) 15 C) 14 D) 13 E) 12

55. $f\left(\frac{x-1}{3}\right) = \frac{2x+1}{5}$

$\Rightarrow f(2) = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

56. $a \star b = 3a + 2b$

$\Rightarrow 3 \star (2 \star 4) = ?$

A) 25 B) 29 C) 34 D) 37 E) 40

57. $a + b = 7$

$\Rightarrow \frac{a^2 - b^2 + 3a - 3b}{a - b} = ?$

A) 4 B) 6 C) 7 D) 8 E) 10

58. $2x + \frac{1}{2x} = 5 \Rightarrow \frac{16x^4 + 1}{4x^2} = ?$

A) 21 B) 23 C) 25 D) 27 E) 29

59. $a, b, c, d \in R$

$ax^3 + bx^2 + cx + d = (x + 9) \cdot (x + 4) \cdot (x + 2)$

$\Rightarrow a + b + c + d = ?$

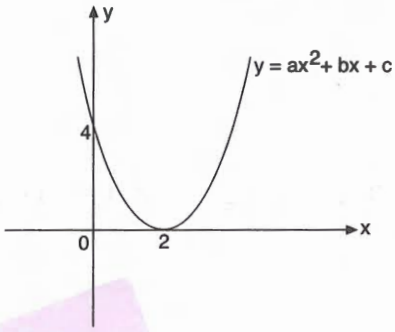
A) 72 B) 84 C) 90 D) 108 E) 150

60. $x^2 = 3x$

$\Rightarrow S.S = ?$

A) {3} B) {−3} C) {0} D) {0, 3} E) {0, −3}

61.



$\Rightarrow y = ?$

A) $x^2 - 2x + 4$ B) $x^2 + 2x + 4$ C) $x^2 + 4x + 4$ D) $x^2 - 4x + 4$ E) $x^2 - 4x + 2$

62. $0 < x < \frac{\pi}{2}$

$\frac{8}{\sin x} = \frac{15}{\cos x} \Rightarrow \sin x = ?$

A) $\frac{8}{15}$ B) $\frac{8}{17}$ C) $\frac{4}{15}$ D) $\frac{4}{17}$ E) $\frac{1}{17}$

63. $y = f(x)$

$\frac{1}{x}+\frac{1}{y}=7 \Rightarrow f'(\frac{2}{7})=?$

A) 1 B) $\frac{3}{7}$ C) $\frac{1}{7}$ D) -1 E) $\frac{-7}{3}$

64. $\frac{d^2}{dx^2}(\sin^2(2x))=?$

A) $\cos(4x)$ B) $2\cos(2x)$ C) $4\cos(2x)$
D) $4\cos(4x)$ E) $8\cos(4x)$

65. $\lim_{x\to 64}\frac{\sqrt{x}-8}{\sqrt[3]{x}-4}=?$

A) 3 B) $\frac{3}{2}$ C) $\frac{2}{3}$ D) $\frac{1}{3}$ E) 0

66. $\lim_{x\to y}\frac{x^2-y^2}{x-y}=?$

A) $2y$ B) y C) $2x$ D) $-y$ E) y^2

67. $i^2=-1$

$z=\frac{3+2i}{1+i}$

$\Rightarrow Im(z)=?$

A) $-\frac{1}{2}$ B) $-\frac{1}{3}$ C) $\frac{2}{3}$ D) $\frac{3}{2}$ E) $\frac{5}{2}$

68. $\log(x-y)=\log x-\log y$

$\Rightarrow x=?$

A) 0 B) $\frac{y^2}{y+1}$ C) $\frac{y^2}{y-1}$
D) $\frac{y}{y^2-1}$ E) $\frac{y-1}{y+1}$

69. $\prod_{k=3}^{62}\left(\frac{k+2}{k+1}\right) = ?$

A) 20 B) 16 C) 15 D) 12 E) 10

70. $f(x) = \text{sgn}(2-x) + [\![2x]\!]$

$\Rightarrow f(2, 7) = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

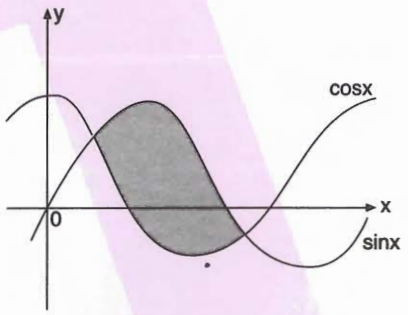
71. $\int \tan^2 x\,dx = ?$

A) $\tan x + x + c$ B) $\tan x + c$ C) $\tan x - x + c$
D) $\ln(\cos^2 x) + c$ E) $\ln(\cos x) + c$

72. $\int_{-4}^{4} |x|dx = ?$

A) 32 B) 16 C) 8 D) 4 E) 0

73.



$\Rightarrow$ Taralı Alan (*Shaded Area*) = ?

A) 0 B) $\sqrt{2}$ C) 2 D) $2\sqrt{2}$ E) 4

74. $\begin{bmatrix} 2 & x \\ 3 & x+1 \end{bmatrix}\cdot\begin{bmatrix} 1 \\ y \end{bmatrix} = \begin{bmatrix} 5 \\ 9 \end{bmatrix}$ $\Rightarrow y = ?$

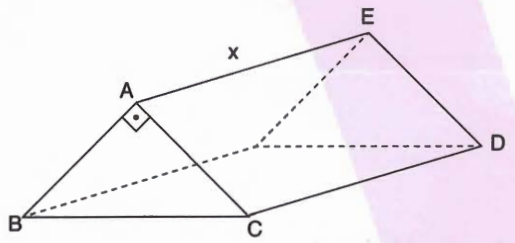
A) 0 B) 1 C) 2 D) 3 E) 4

75. $\begin{bmatrix} 1 & 2 \\ 0 & 1 \end{bmatrix}^2 + 3 \cdot \begin{bmatrix} 2 & -1 \\ 1 & 0 \end{bmatrix} = ?$

A) $\begin{bmatrix} 7 & 1 \\ 1 & 3 \end{bmatrix}$ B) $\begin{bmatrix} 7 & 1 \\ 3 & 1 \end{bmatrix}$ C) $\begin{bmatrix} 3 & 1 \\ 7 & 1 \end{bmatrix}$

D) $\begin{bmatrix} 7 & 3 \\ 1 & 1 \end{bmatrix}$ E) $\begin{bmatrix} 1 & 7 \\ 1 & 3 \end{bmatrix}$

76.



Dik üçgen prizma (*right triangle prism*)

$|AC| = 12$ cm

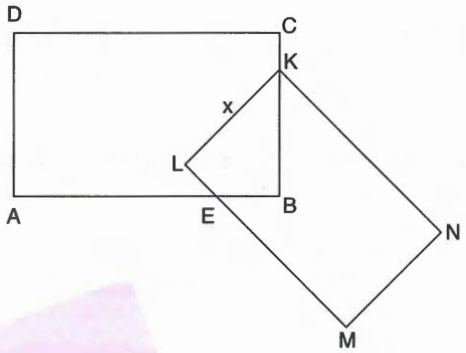
$|BC| = 15$ cm

$V_{(prizma)(prism)} = 1080$ cm^3

$\Rightarrow |AE| = x = ?$

A) 10 B) 20 C) 30 D) 40 E) 50

77.



ABCD ve KLMN diktörgen

ABCD and KLMN rectangles

$|EB| = 1$ br

$|BK| = 4$ br

$|EL| = 2$ br

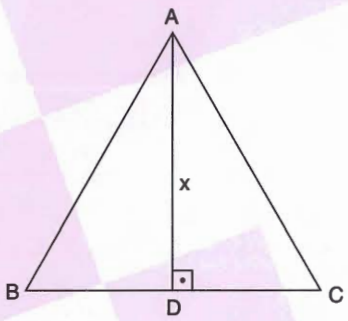
$|KL| = x$

$\Rightarrow x = ?$

A) $2\sqrt{2}$ B) $\sqrt{13}$ C) $\sqrt{14}$

D) $\sqrt{15}$ E) $\sqrt{17}$

78.



$[AD] \perp [BC]$

$|AB| = \sqrt{10}$ br

$|AC| = |BC| = 5$ br

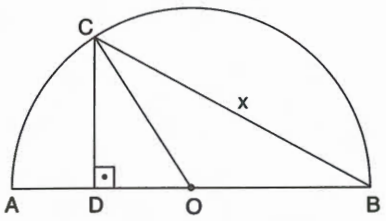
$|AD| = x$

$\Rightarrow x = ?$

A) 3 B) $2\sqrt{2}$ C) $\sqrt{7}$

D) $\sqrt{5}$ E) $\sqrt{2}$

79.



O merkez (*center*)

$[CD] \perp [AB]$

$|AD| = 2$ br

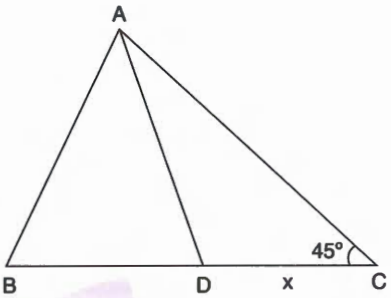
$|DO| = 3$ br

$|CB| = x$

$\Rightarrow x = ?$

A) $4\sqrt{5}$ B) $5\sqrt{3}$ C) $6\sqrt{2}$ D) 8 E) $8\sqrt{2}$

80.



$m(\widehat{ACB}) = 45°$

$|AB| = |AD| = 10$ br

$|BD| = 12$ br

$|DC| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

DENEME SINAVI 02 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	C	E	A	C	E	B	D	B	B	D	C	E	D	B	E	D	B	D	D

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
A	C	D	A	B	C	B	D	A	A	D	A	B	C	A	E	C	D	E	C

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
A	A	C	D	B	E	A	B	B	D	A	C	D	B	C	D	E	B	E	D

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
D	B	D	E	A	A	A	C	B	C	C	B	D	D	B	B	B	A	A	B

DENEME SINAVI 03
TRIAL EXAM 03

1.

76562
56763
06867
54763
14390

⇒ 76562 = ?

A) MASAL B) BİLET C) SAMAN
D) MİSAL E) TARAS

2.

6457
3526
4267
5346
2536

⇒ 4267 = ?

A) ▲■✶△ B) ✶▲●△ C) □●■✶
D) ●□▲✶ E) ■●□✶

3.

○□△●■
△▲○⊙▣
□△↻□■
○⊙△●△
△✥▣⊙▣

07464
16020
50958
03164
15028

⇒ ○□△●■ = ?

A) 07464 B) 16020 C) 50958
D) 03164 E) 15028

4.

$$\begin{array}{r} ABC \\ \times\ \ 23 \\ \hline \cdots \\ +\ 494 \\ \hline KLMN \end{array}$$

⇒ KLMN = ?

A) 4967 B) 4988 C) 5236
D) 5562 E) 5681

5.

$$\begin{array}{r} 9A5 \\ -\ 6BC \\ \hline A76 \end{array}$$

⇒ A + B + C = ?

A) 18 B) 17 C) 16 D) 15 E) 14

6.

$$\begin{array}{r} A6A7 \\ +\ 7A6A \\ \hline 14BBB \end{array}$$

⇒ A + B = ?

A) 9 B) 10 C) 11 D) 12 E) 13

DENEME SINAVI 03

7. I. 3 4 → 21
II. 7 6 → 24
III. 4 8 → 23
IV. 5 3 → ?

Yukarıdaki eşitlikler işaretinin görevini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of is unchanged. What is the solution to the last equation?

A) 15 B) 27 C) 32 D) 47 E) 51

8. I. $a \bullet b = a^2 - 2b + 1$
II. $a \blacklozenge b = 2a - 3b$
III. $(5 \bullet 3) \blacklozenge (12 \blacklozenge 4) = ?$

Yukarıdaki iki eşitlik ● ve ◆ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions ● and ◆ are unchanged. What is the solution of the third equation?

A) 5 B) 4 C) 0 D) –1 E) – 5

9. I. $\frac{a}{3} \bullet 2b = 2a + 4b^2$

II. $a^2 \blacksquare \frac{b}{3} = \frac{b}{a}$

III. $(6 \bullet 8) \blacksquare (1 \bullet 2) = ?$

Yukarıdaki iki eşitlik ● ve ■ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions ● and ■ are unchanged. What is the solution of the third equation?

A) 1 B) 2 C) 3 D) 4 E) 5

10.

+	a	b	c
a	8·b	10	
b			14

$\Rightarrow \frac{c-a}{b} = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre $\frac{c-a}{b}$ kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of $\frac{c-a}{b}$?

A) 0 B) 2 C) 3 D) 4 E) 5

11.

+	a	b	c
a		c	
b			68
c	55		

$\Rightarrow c = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of c?

A) 14 B) 27 C) 33 D) 41 E) 53

12.

x	a	b	c
a		8c	
b			18a
c	2b		

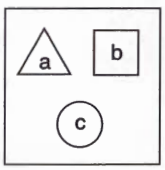
$\Rightarrow a + b + c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a + b + c kaçtır?

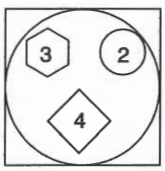
In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a + b + c ?

A) 12 B) 18 C) 22 D) 24 E) 30

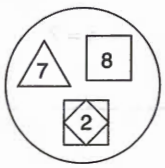
13.

I. 

→ 4(3a + 4b + c)

II. 

→ 144

III. 

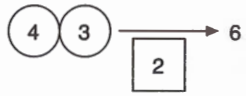
→ ?

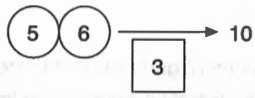
I. ve II. şekilde belirlenen kurala göre, III. şekildeki soru işaretinin yerine hangi sayı gelmelidir?

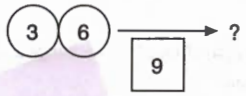
Given the relationship established in I and II which number does the question mark stand for in III ?

A) 55 B) 65 C) 75 D) 85 E) 95

14.

I. 

II. 

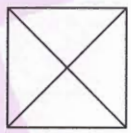
III. 

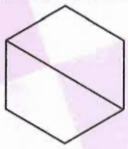
I. ve II. şekilde belirlenen kurala göre, III. şekildeki soru işaretinin yerine hangi sayı gelmelidir?

Given the relationship established in I and II which number does the question mark stand for in III ?

A) 1 B) 2 C) 3 D) 4 E) 5

15.

I.  → 4, 2, 4

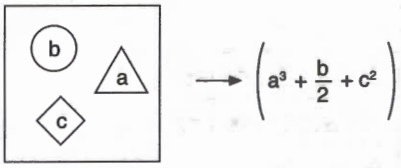
II.  → 6, 1, 2

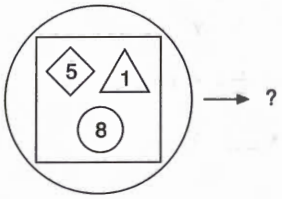
III.  → 6, 2, 4

IV.  → ?

A) 8, 3, 2 B) 8, 2, 3 C) 8, 1, 2
D) 6, 2, 3 E) 6, 1, 2

16.

I. 

II. 

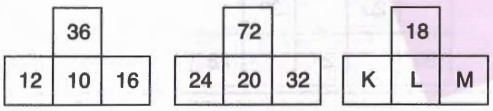
A) 10 B) 12 C) 15 D) 25 E) 125

17.



A) 30 B) 60 C) 120 D) 150 E) 180

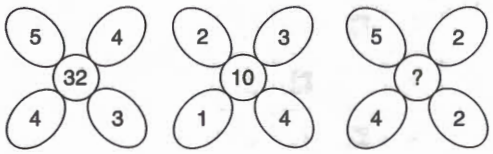
18.



K = ?, L = ?, M = ?

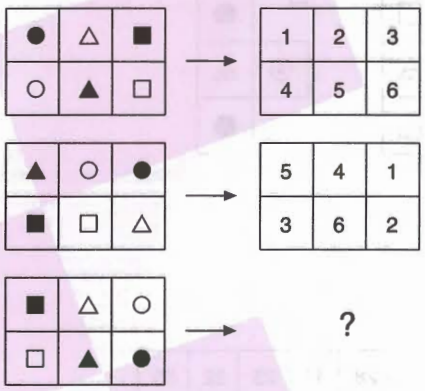
	K	L	M
A)	4	8	5
B)	6	5	8
C)	12	8	6
D)	6	10	9
E)	6	8	10

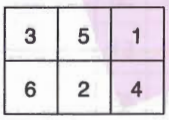
19.

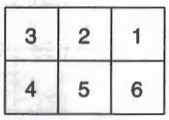


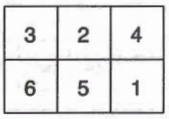
A) 15 B) 18 C) 21 D) 24 E) 30

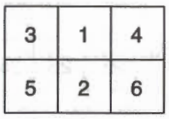
20.

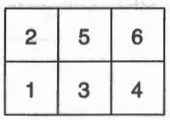


A) 

B) 

C) 

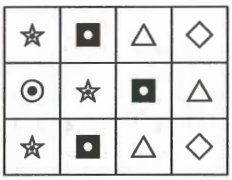
D) 

E) 

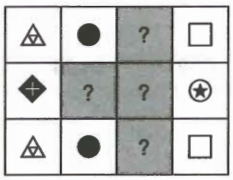
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21.

I.



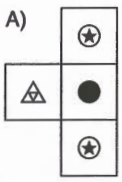
II.



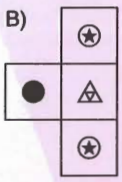
I. şekilde belirlenen kurala göre, II. şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Given the relationship established in figure I, which of the following does the question mark stand for in figure II ?

A)



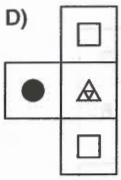
B)



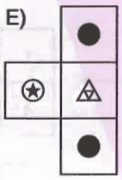
C)



D)



E)



22.

28	41	23	32	55
31	36	26	27	58
24	34	19	25	51
?	?	?	31	43

A)

28	26	25

B)

24	38	15

C)

30	26	25

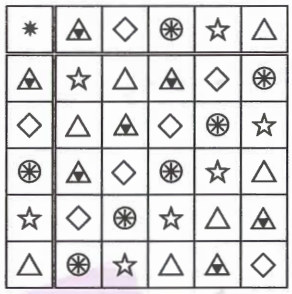
D)

16	40	11

E)

20	36	13

23.



$$\left(\circledast * \star\right) * \left(\blacktriangle * \triangle\right) = ?$$

Yukarıdaki tabloda ✱ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ✱ operation established in the table above, which of the following dos the question mark stand for ?

A) ▲ B) ◇ C) ⊛ D) ☆ E) △

24.

▲ \ ●				
29				?
		30		
	25		29	
20		24		28

Yukarıdaki tablo, satırlar için ●, sütunlar için ▲ işlemlerine göre düzenlenmiştir. Buna göre, soru işaretinin yerine hangi sayı gelmelidir?

The table above is organized according to the ● operation for the rows and the ▲ operation for the columns. Which number does the question mark stand for?

A) 34 B) 35 C) 37 D) 39 E) 40

25.

❖	☺❁	☎☺	🖫
❁☺	☺☯	❁☎	❁☺🖫
☺	☺☯❁	☎	☺🖫
❁☎	☎☯	❁☺	?

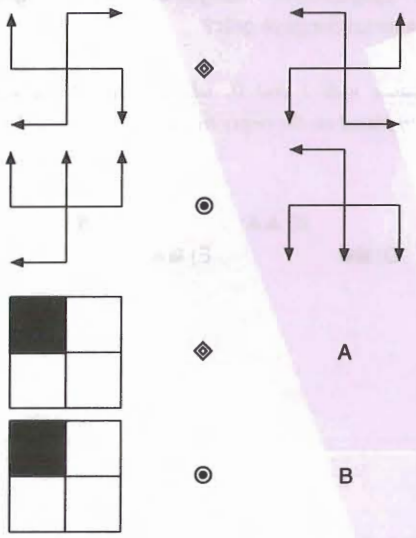
Yukarıdaki tablo ❖ işlemine göre düzenlenmiştir. Buna göre K, L ve M nin yerine hangi şekiller gelmelidir?

The table above is organized according to the ❖ opeation. Which of the following do K, L and M stand for ?

A) ❁☺ B) ☎☯ C) 🖫❁

D) ☎☺☯ E) ❁☎🖫

26.

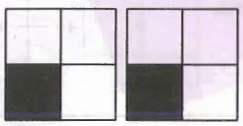


⇒ A, B = ?, ?

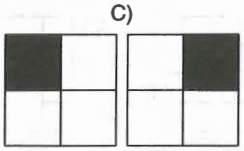
A)



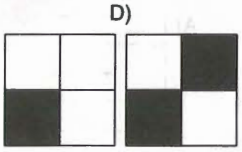
B)



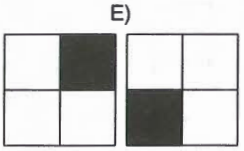
C)



D)

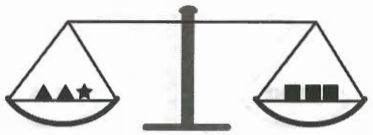


E)

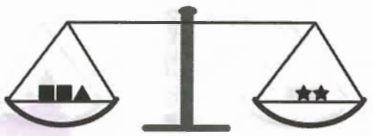


27.

I.



II.



III.



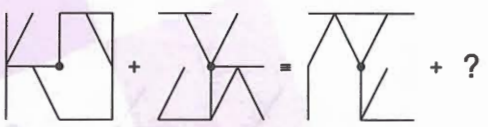
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ■■ B) ■▲▲ C) ▲▲▲

D) ■■▲ E) ★★★★

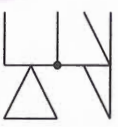
28.



A)



B)



C)



D)



E)



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29.

I. 

II. 

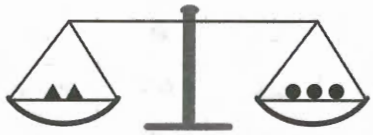
III. 

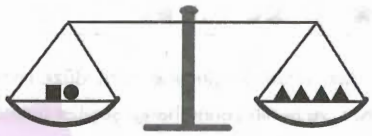
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below,when placed on the empty tray in III, will make the scale balance ?

A) ▲▲▲ B) ▲▲ C) ■▲▲ D) ●▲▲ E) ■■▲

31.

I. 

II. 

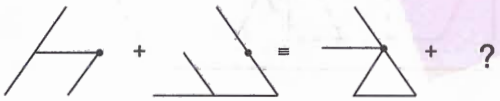
III. 

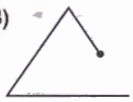
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

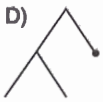
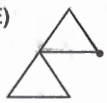
In accordance with I and II, which group of the weights below,when placed on the empty tray in III, will make the scale balance ?

A) ▲ B) ▲▲ C) ■ D) ■● E) ■▲

30.



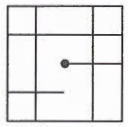
A)  B)  C) 

D)  E) 

32.

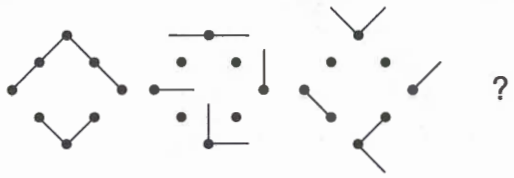


A)  B)  C) 

D)  E) 

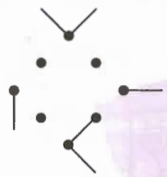
33.

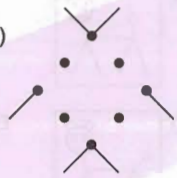
I. II. III. IV.

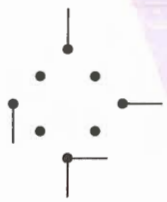


Yukarıdaki şekil dizisinde soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

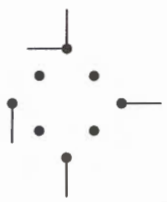
In he figure sequence above what does "?" stand for?

A) 

B) 

C) 

D) 

E) 

34.

I. II. III. IV.

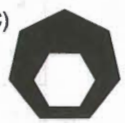


Yukarıdaki şekil dizisinde soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

In he figure sequence above what does "?" stand for ?

A) 

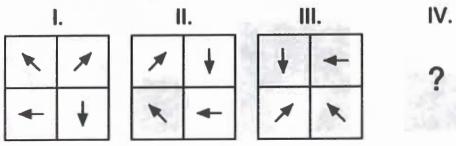
B) 

C) 

D) 

E) 

35.



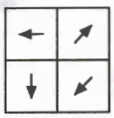
Yukarıdaki şekil dizisinde soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

In he figure sequence above what does "?" stand for?

A) 

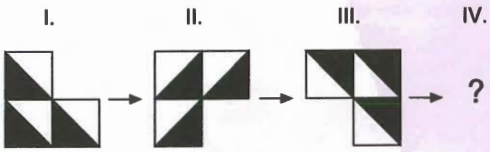
B) 

C) 

D) 

E) 

36.



Yukarıdaki şekil dizisinde soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

In he figure sequence above what does "?" stand for?

A) 

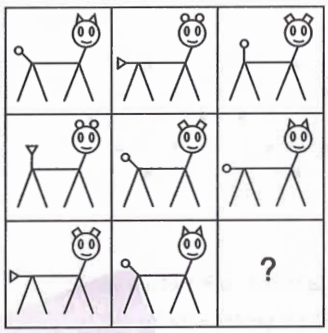
B) 

C) 

D) 

E) 

37.



A) 

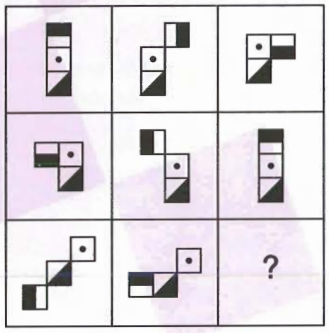
B) 

C) 

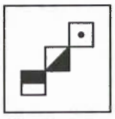
D) 

E) 

38.



A) 

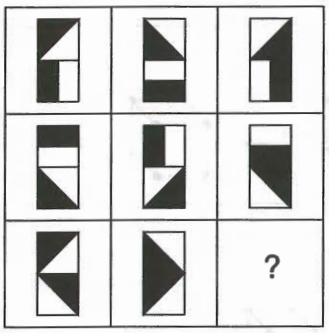
B) 

C) 

D) 

E) 

39.



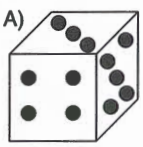
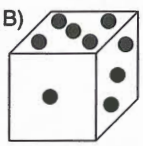
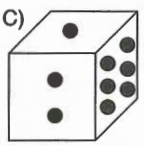
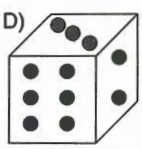
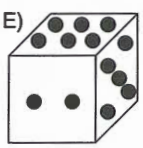
A) 
B) 
C) 
D) 
E) 

40.

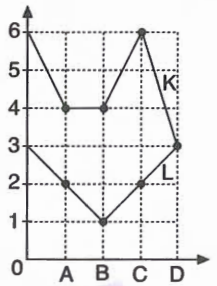


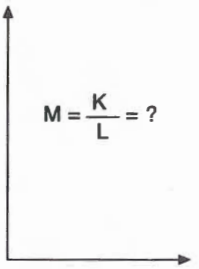
Hangisi yukarıdakilerle aynı küptür?

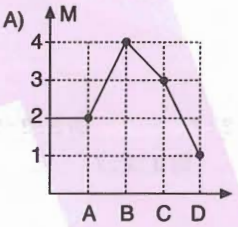
Which of the following is the same cube?

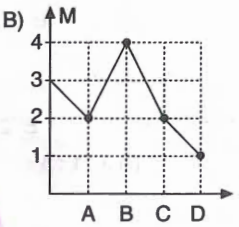
A) 
B) 
C) 
D) 
E) 

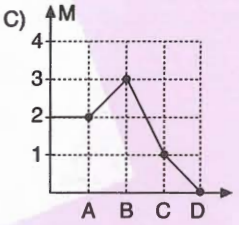
41.

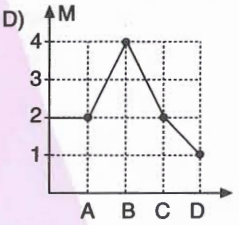


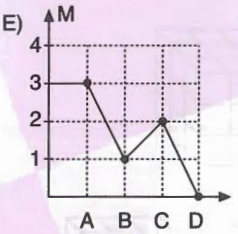


A) 

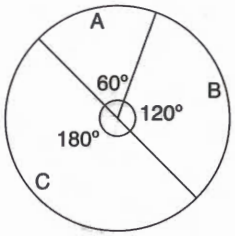
B) 

C) 

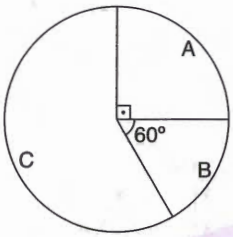
D) 

E) 

42.



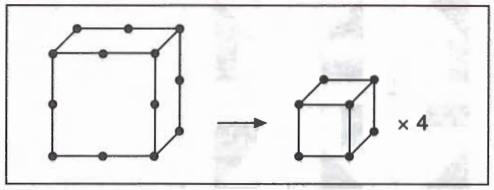
A : B : C → 1 : 2 : 3



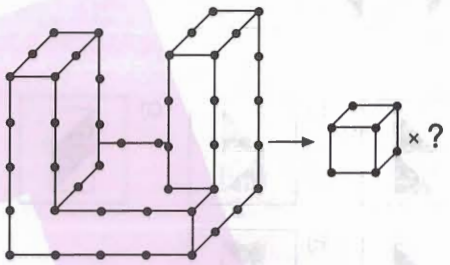
A : B : C → ? : ? : ?

A) 1 : 2 : 5 B) 2 : 3 : 7 C) 2 : 3 : 5
D) 3 : 1 : 6 E) 3 : 2 : 7

EXAMPLE

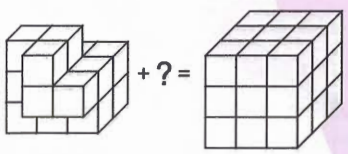


44.

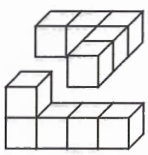


A) 26 B) 25 C) 24 D) 23 E) 22

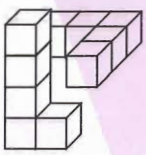
43.



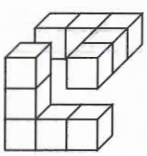
A)



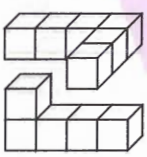
B)



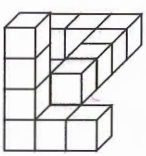
C)



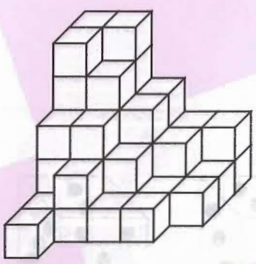
D)



E)



45.



Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above ?

A) 48 B) 49 C) 50 D) 51 E) 52

46. $\frac{-4-(-5)+(-3)}{2\cdot(-3)} = ?$

A) 2 B) 1 C) $\frac{1}{2}$ D) $\frac{1}{3}$ E) $\frac{1}{6}$

47. $|\sqrt{5}-3|+|2-\sqrt{5}| = ?$

A) 1 B) $\sqrt{5}-1$ C) $2\sqrt{5}$ D) 5 E) $5-\sqrt{5}$

48. $\frac{0,743\cdot(0,21-0,2)}{10^{-4}} = ?$

A) 0,743 B) 7,43 C) 74,3 D) 743 E) 7430

49. $\left.\begin{array}{l} x = 3^{120} \\ y = 5^{90} \\ z = 10^{60} \end{array}\right\} \Rightarrow ? < ? < ?$

A) $y < x < z$ B) $y < z < x$ C) $z < y < x$ D) $x < z < y$ E) $z < x < y$

50. $\sqrt{12}+\frac{6}{\sqrt{3}}+\sqrt{27} = ?$

A) $3\sqrt{3}$ B) $3\sqrt{10}$ C) $5\sqrt{3}$ D) $6\sqrt{3}$ E) $7\sqrt{3}$

51. $\frac{\sqrt{0,09}+\sqrt{0,25}}{\sqrt{1,21}-\sqrt{0,64}} = ?$

A) 4 B) $\frac{8}{3}$ C) $\frac{11}{4}$ D) 2 E) $\frac{8}{7}$

52. $\frac{xy}{2}=\frac{yz}{3}=\frac{xz}{4}$

$x+y+z=39$

$\Rightarrow z=?$

A) 3 B) 9 C) 12 D) 18 E) 24

53. $\left.\begin{array}{l} a+b=17 \\ b+c=19 \\ a+c=24 \end{array}\right\} \Rightarrow a+b+c=?$

A) 20 B) 26 C) 30 D) 32 E) 38

54. $\left.\begin{array}{l} A=\{a,b,c,d,e,f\} \\ B=\{a,c,f,g,h\} \\ C=\{a,c,d,f,h\} \end{array}\right\} \Rightarrow (A \setminus B) \cap C=?$

A) {b, d, e} B) {b, e} C) {d, e}
D) {a} E) {d}

55. $f(x)=\frac{2x+3}{5x-a}$

$f(x)=f^{-1}(x) \quad \Rightarrow a=?$

A) 3 B) 2 C) −1 D) −2 E) −3

56. $\frac{1}{a*b}=\frac{1}{a}+\frac{1}{b}$

$\Rightarrow 2*4=?$

A) $\frac{3}{4}$ B) 9 C) $\frac{5}{4}$ D) $\frac{4}{3}$ E) 24

57. $\frac{x^2-1}{x+1}-\frac{x^2-9}{x+3}=?$

A) 2 B) −4 C) 2x + 2
D) 2x − 2 E) 2x − 4

58. $\left.\begin{array}{l} A=x^3+3x^2+3x+7 \\ x=\sqrt[3]{3}-1 \end{array}\right\} \Rightarrow A=?$

A) 11 B) 10 C) 9 D) 8 E) 7

59. $A,B \in R$

$$\frac{5x+9}{x^2+4x+3}=\frac{A}{x+1}+\frac{B}{x+3}$$

$\Rightarrow A-B=?$

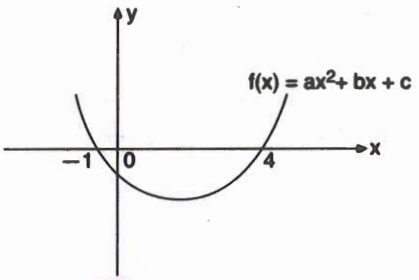
A) -2 B) -1 C) 0 D) 1 E) 2

60. $(x+\frac{1}{x})^2-4\cdot(x+\frac{1}{x})+4=0$

$\Rightarrow x=?$

A) 1 B) 2 C) 3 D) 4 E) 5

61.



$m \neq n$

$f(m)=0$

$f(n)=0$

$\Rightarrow |m-n|=?$

A) 3 B) 4 C) 5 D) 6 E) 7

62. $m \cdot n = 1$

$0<x<\pi$

$m^{\sin x}=n^{\cos x}$

$\Rightarrow x=?$

A) $\frac{\pi}{6}$ B) $\frac{\pi}{4}$ C) $\frac{\pi}{3}$ D) $\frac{\pi}{2}$ E) $\frac{3\pi}{4}$

63. $\frac{d}{dx}(\ln(\sin x)) = ?$

A) tanx B) cotx C) secx D) sinx E) cosecx

64. $f : [-2, 1] \to R$

$y = f(x) = x^3 - 3x + 7$

$\Rightarrow \max(y) = ?$

A) 5 B) 7 C) 8 D) 9 E) 10

65. $\lim_{x \to -\infty} (3^{\frac{1}{x}} + 4^x + 2) = ?$

A) 3 B) 2 C) 1 D) 0 E) –1

66. $\lim_{x \to 2} \frac{x^3 - 4x}{x^3 - 8} = ?$

A) 4 B) 2 C) $\frac{2}{3}$ D) $\frac{1}{2}$ E) $\frac{1}{4}$

67. $i^2 = -1$

$z = \frac{a + 3i}{a - 3i} \Rightarrow |z| = ?$

A) $\frac{1}{3}$ B) $\frac{1}{\sqrt{3}}$ C) 1 D) $\sqrt{3}$ E) 3

68. $\log_2(\log_3 x) = 2$

$\Rightarrow x = ?$

A) 4 B) 8 C) 9 D) 27 E) 81

69. $\sum_{k=1}^{180} (\cos k°) = ?$

A) -1 B) $-\frac{\sqrt{2}}{2}$ C) 0 D) $\frac{1}{2}$ E) 1

70. $f(x) = \begin{cases} x^2+5x & x \geq 3 \\ 2x+3 & x < 3 \end{cases}$

$g(x) = \begin{cases} 4x-3 & x \geq 1 \\ x^3+1 & x < 1 \end{cases}$

$\Rightarrow (f+g)(2) = ?$

A) 3 B) 8 C) 12 D) 27 E) 50

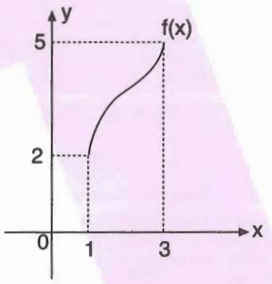
71. $\int_0^1 e^{2x}\,dx = ?$

A) $\frac{e^2}{2}$ B) e C) $\frac{e^2-1}{2}$ D) $\frac{e^2+1}{2}$ E) $\frac{e^2-2}{2}$

72. $\int_3^{10} (\text{sgn}(x-5))dx = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

73.



$\Rightarrow \int_1^3 f(x)\,dx + \int_2^5 f^{-1}(x)\,dx = ?$

A) 11 B) 12 C) 13 D) 14 E) 15

74. $A = \begin{bmatrix} 99765 & 99766 \\ 99767 & 99768 \end{bmatrix}$

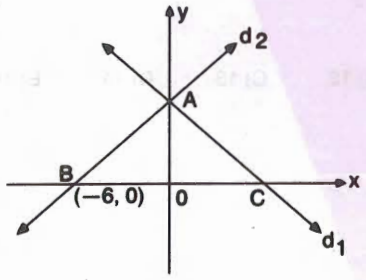
$\Rightarrow |A| = ?$

A) -2 B) 0 C) 1 D) 2 E) 99767

75. $\begin{vmatrix} 3 & -2 & 2 \\ 2 & 5 & 1 \\ 1 & 3 & 3 \end{vmatrix} = ?$

A) 32 B) 36 C) 40 D) 45 E) 48

76.



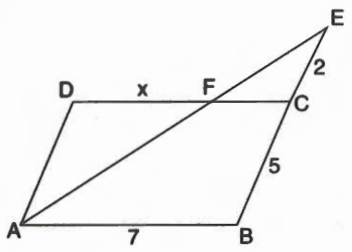
$d_1: 4x + 3y - 12 = 0$

$d_2: ax + by + 12 = 0$

$\Rightarrow a + b = ?$

A) −1 B) −2 C) −3 D) −4 E) −5

77.



[AB] // [DC]

[BC] // [AD]

|EC| = 2 br

|CB| = 5 br

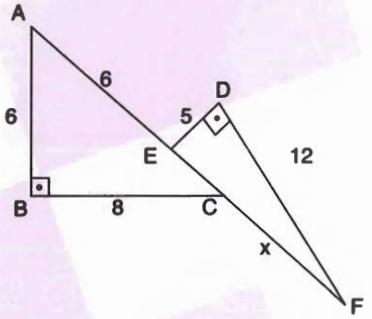
|AB| = 7 br

|DF| = x

$\Rightarrow x = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

78.



[AB] ⊥ [BC]

[DE] ⊥ [DF]

|AB| = 6 br

|AE| = 6 br

|DE| = 5 br

|BC| = 8 br

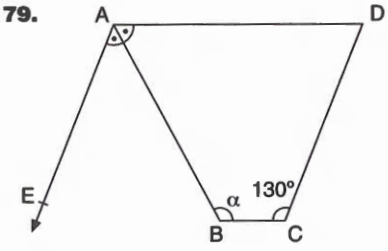
|DF| = 12 br

|CF| = x

$\Rightarrow x = ?$

A) 9 B) 8 C) 7 D) 6 E) 5

79.



[AE // [DC]

[AD] // [BC]

$m(\widehat{EAB}) = m(\widehat{BAD})$

$m(\widehat{DCB}) = 130°$

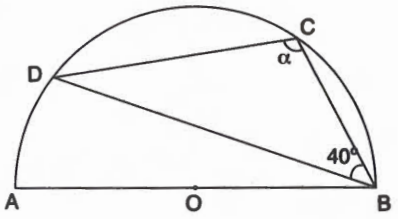
$m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100° B) 110° C) 115°

D) 120° E) 130°

80.



O merkez (*center*)

$m(\widehat{DBC}) = 40°$

$m(\widehat{BC}) = 40°$

$m(\widehat{DCB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 80° B) 100° C) 110°

D) 120° E) 130°

DENEME SINAVI 03 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C	A	E	E	D	A	E	B	C	B	D	C	D	B	B	C	C	B	B	C

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
A	D	D	C	E	E	C	B	A	A	C	B	C	B	C	C	B	E	B	B

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
A	E	C	C	A	D	A	C	D	E	B	D	C	E	B	D	A	C	B	A

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C	E	B	D	A	C	C	E	A	C	C	A	C	A	E	A	C	A	C	D

DENEME SINAVI 04

TRIAL EXAM 04

1.

72616
81435
28439
63917
52916

⇒ 81435 = ?

A) FETİH B) HAFİF C) NİKEL
D) ANKET E) LATİF

2.

△□★▲●✱
●□▲✱△★
✱★□✱△▲
■□●✱▲△
✱□△✱★●

⇒ ■□●✱▲△ = ?

A) 372154 B) 157126 C) 275643
D) 476125 E) 874162

3.

✱▲■※
⊗✱▲■
■※✱✹
▲■✹✱
✱✹※▲

⇒ ▲■✹✱ = ?

A) 6435 B) 5386 C) 8653
D) 3548 E) 3864

4.

K M K
L L M
\+ M K L
1 N N 7

⇒ K + L + M + N = ?

A) 23 B) 24 C) 25 D) 26 E) 27

5.

$$\begin{array}{r} N \\ N \\ +\ K \\ \hline 10 \end{array} \qquad \begin{array}{r} K \\ -\ N \\ \hline 1 \end{array} \qquad \begin{array}{r} KL \\ \times\ M \\ \hline NKN \end{array} \qquad \Rightarrow L = ?$$

A) 5 B) 6 C)7 D) 8 E) 9

6.

$$\begin{array}{r} 25 \\ \times\ MN \\ \hline \cdot\ \cdot\ \cdot \\ +\ 50 \\ \hline 6MN \end{array} \qquad \Rightarrow M \times N = ?$$

A) 2 B) 6 C) 8 D) 10 E) 12

7. I. $a \blacktriangle 3 = (a \cdot 3) + \left(\frac{a-3}{2}\right)$

II. $b \blacksquare 2 = (b \cdot 2) - (b + 2)$

III. $(6 \blacktriangle 4) \blacksquare 2 = ?$

Yukarıdaki iki eşitlik ▲ ve ■ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions ▲ and ■ are unchanged. What is the solution of the third equation?

A) 11 B) 17 C) 19 D) 21 E) 23

8. I. ● 452 → 11

II. ● 234 → 9

III. ▲ 513 → 7

IV. ▲ 513 → 7

V. ▲ 254 → 1

VI. ● (▲ 935) → 2

VII. ● (▲ 826) → ?

A) 1 B) 2 C) 3 D) 4 E) 5

9. I. ▲ + ▲ = ■

II. ▲ + ■ = 9

III. ■ + ● = 18

IV. ● = ?

A) 5 B) 7 C) 8 D) 10 E) 12

11.

+	a	b	c
a		6a	b+2
b		30	
c			

⇒ c = ?

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of c ?

A) 8 B) 12 C) 14 D) 15 E) 18

10.

+	a	b	c
a	3b		
b			2a
c			

x	a	b	c
a		24	
b			
c			

⇒ c = ?

Yukarıdaki toplama ve çarpma tablolarında a, b ve c belli birer sayının yerine kullanılmıştır. Buna göre, c kaçtır?

In the summation and multiplication tables above a, b and c each stand for a specific numeral. What is the value c ?

A) 4 B) 6 C) 8 D) 12 E) 16

12.

x	a	b	c
a	2b	32	
b			
c	48		

⇒ c = ?

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of c ?

A) 4 B) 6 C) 8 D) 12 E) 16

13.

x	a	b	c
a		a+c	
b			2a+2c
c	8		

$\Rightarrow a + b + c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a+b+c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a+b+c ?

A) 9 B) 10 C) 12 D) 14 E) 26

14.

x	a	b	c
a	b	8	
b			
c		10a	

$\Rightarrow c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of c ?

A) 1 B) 2 C) 3 D) 4 E) 5

15.

●	a	b	c	d
a	b	d	c	a
b	c	d	a	b
c	a	c	b	d
d	d	c	a	b

(a ● b) ● (c ● d) = b

$\Rightarrow$ (c ● a) ● (b ● d) = ?

A) c ● d B) b ● c C) d ● b D) a ● c E) c ● c

16.

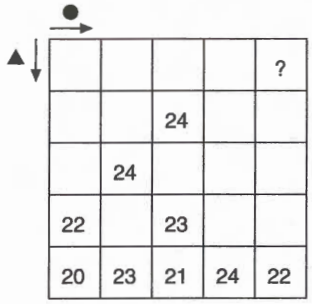
▲ \ ●				
		25	22	27
	22	27		
	21		23	
		?		30

Yukarıdaki tablo, satırlar için ●, sütunlar için ▲ işlemlerine göre düzenlenmiştir. Buna göre, soru işaretinin yerine hangi sayı gelmelidir?

The table above is organized according to the ● operation for the rows and the ▲ operation for the columns. Which number does the question mark stand for?

A) 19 B) 20 C) 26 D) 28 E) 31

17.



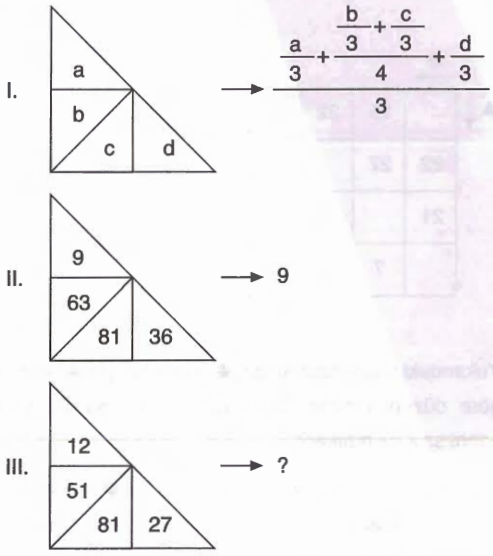
				?
		24		
	24			
22		23		
20	23	21	24	22

Yukarıdaki tablo, satırlar için ●, sütunlar için ▲ işlemlerine göre düzenlenmiştir. Buna göre, soru işaretinin yerine hangi sayı gelmelidir?

The table above is organized according to the ● operation for the rows and the ▲ operation for the columns. Which number does the question mark stand for ?

A) 30 B) 29 C) 27 D) 25 E) 24

18.

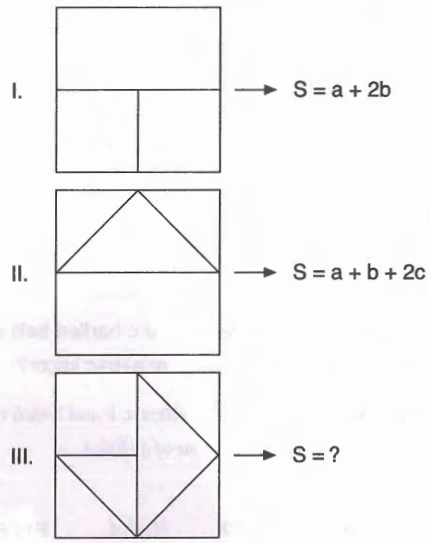


I. ve II. şekilde belirlenen kurala göre, III. şekildeki soru işaretinin yerine hangi sayı gelmelidir?

Given the relationship established in I and II which number does the question mark stand for in III ?

A) 4 B) 6 C) 8 D) 10 E) 12

19.

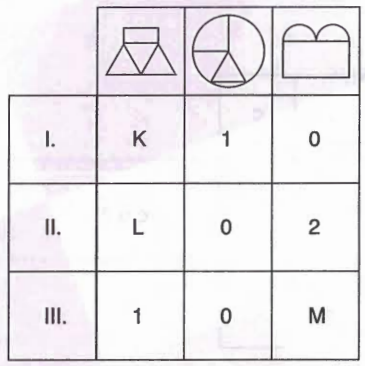


I. ve II. şekilde belirlenen kurala göre, III. şekildeki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Given the relationship established in I and II which of the followings does the question mark stand for in III ?

A) a + 2b + c B) a + 3c C) 2a + b + c D) a + 2b + 4c E) 4c + 2b

20.



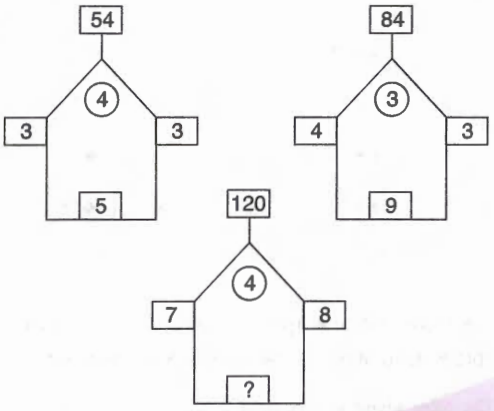
I.	K	1	0
II.	L	0	2
III.	1	0	M

Yukarıdaki verilenlere göre K, L ve M aşağıdakilerden hangisidir?

According the given table above, which of the following is the rate of K, L and M?

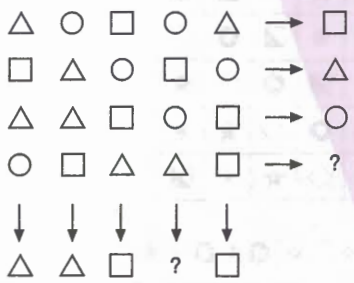
	K	L	M
A)	3	0	1
B)	1	0	3
C)	3	1	0
D)	2	0	1
E)	1	1	0

21.



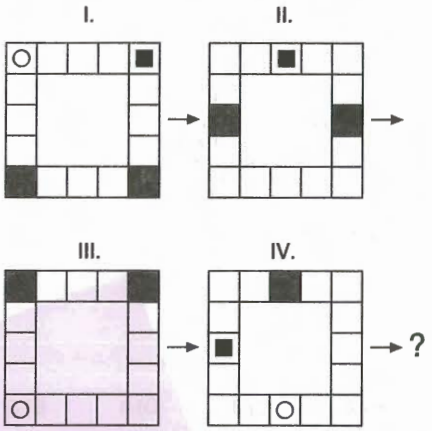
A) 4 B) 5 C) 6 D) 7 E) 8

22.



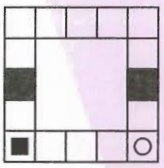
A) □ , □ B) □ , △ C) △ , △
D) △ , ○ E) ○ , ○

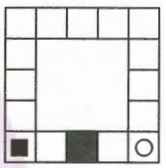
23.

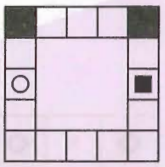


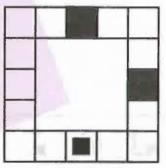
Yukarıdaki şekil dizisinde soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

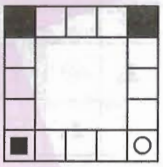
In he figure sequence above what does "?" stand for?

A) 

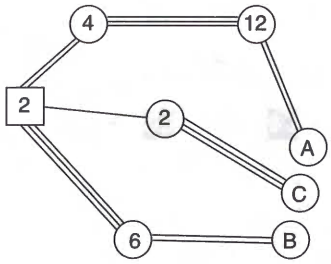
B) 

C) 

D) 

E) 

24.

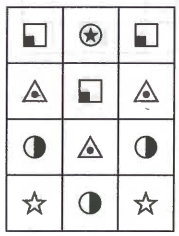


$\Rightarrow \frac{A}{B-C} = ?$

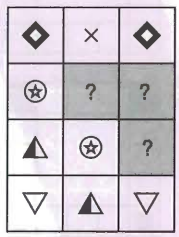
A) 1 B) 2 C) 3 D) 4 E) 5

25.

I.

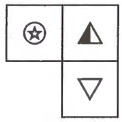


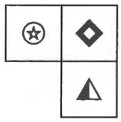
II.

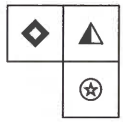


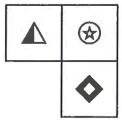
I. Şekilde belirlenen kurala göre, II. şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

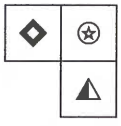
Given the relationship established in figure I, which of the following does the question mark stand for in figure II ?

A) 

B) 

C) 

D) 

E) 

26.

✹	✚✹❒	✌✧⇦	✧✌✹	✚❒⇦
✚	✹❒	✌✧⇦	K	❒⇦
✌	✚✹❒	L	✧⇦	✚❒⇦
✧	✚✹❒	M	✌✹	✚❒⇦

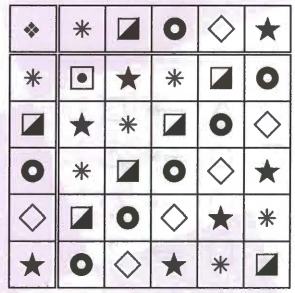
K = ? L = ? M = ?

Yukarıdaki tablo ✹ işlemine göre düzenlenmiştir. Buna göre K, L ve M nin yerine hangi şekiller gelmelidir?

The table above is organized according to the ✹ operation. Which of the following do K, L and M stand for ?

	K	L	M
A)	✧✌✹	✌✧⇦	✌⇦
B)	✌✹	✌✧	✌✧
C)	✧✌✹	✧⇦	✌⇦
D)	✧✌✹	✧⇦	✌✧⇦
E)	✌✹	✌✧⇦	✌✧

27.



$\left[\left(\ast \diamond \diamond\right) \diamond ? \right] \diamond \left(\bullet \diamond \bullet\right) = \bigstar$

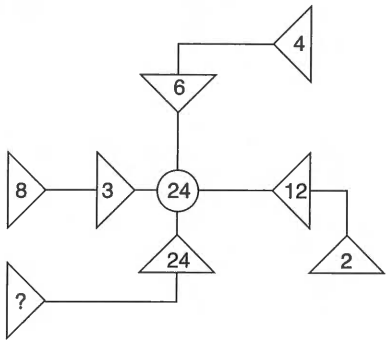
Yukarıdaki tabloda ❖ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ❖ operation established in the table above, which of the following dos the question mark stand for?

A) $\left(\ast \diamond \blacksquare\right)$ B) $\left(\ast \diamond \bullet\right)$ C) $\left(\bigstar \diamond \blacksquare\right)$

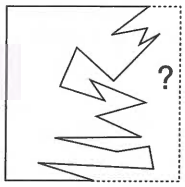
D) $\left(\diamond \diamond \ast\right)$ E) $\left(\bullet \diamond \bullet\right)$

28.



A) 1 B) 6 C) 8 D) 12 E) 24

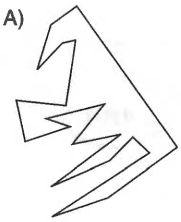
29.



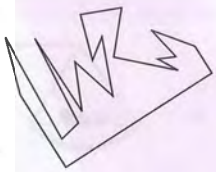
Yukarıdaki şekli aşağıdakilerden hangisi tamamlar?

Which of the followings completes the given figure above ?

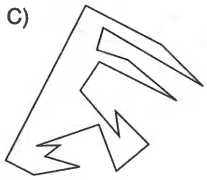
A)



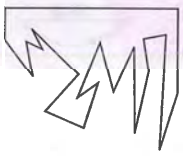
B)



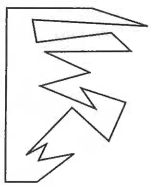
C)



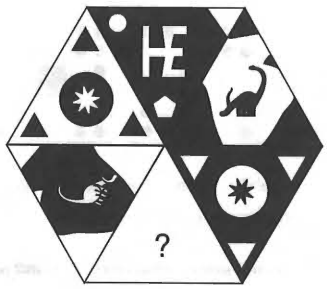
D)



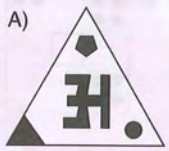
E)



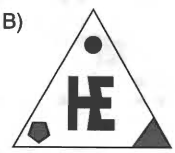
30.



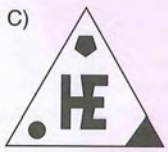
A)



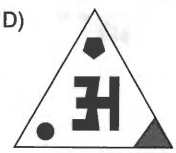
B)



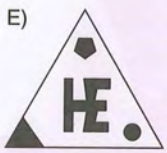
C)



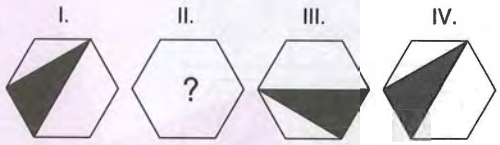
D)



E)



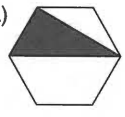
31.



Yukarıdaki şekil dizisinde soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

In he figure sequence above what does "?" stand for ?

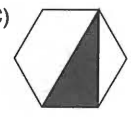
A)



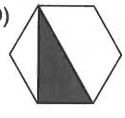
B)



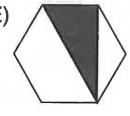
C)



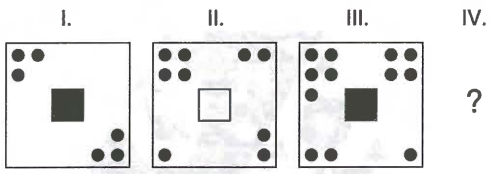
D)



E)

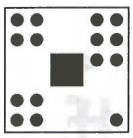
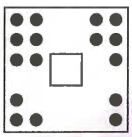
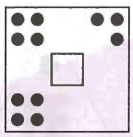
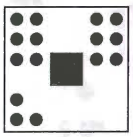
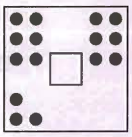


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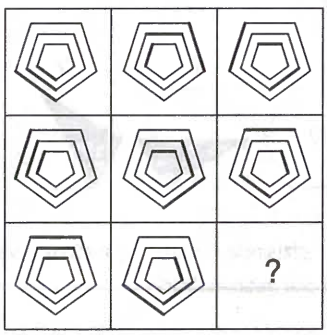


Yukarıdaki şekil dizisinde soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

In he figure sequence above what does "?" stand for?

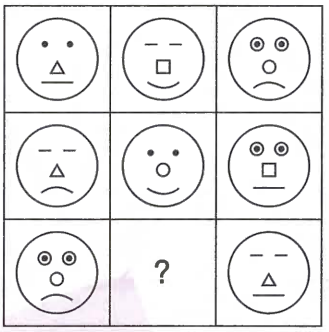
A) 
B) 
C) 
D) 
E) 

33.



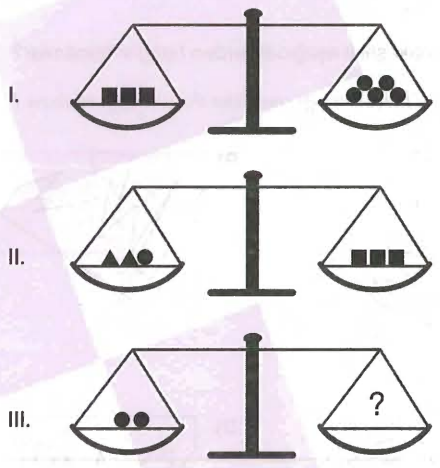
A) 
B) 
C) 
D) 
E) 

34.



A) 
B) 
C) 
D) 
E) 

35.



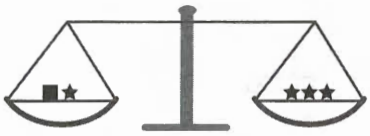
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below,when placed on the empty tray in III, will make the scale balance ?

A) ▲ B) ■ C) ▲■
D) ■●● E) ■▲

36.

I. 

II. 

III. 

I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below,when placed on the empty tray in III, will make the scale balance ?

A)■■ B) ■★ C) ★★
D)■■★★ E) ■★★

37.

I. 

II. 

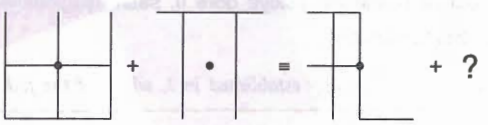
III. 

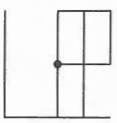
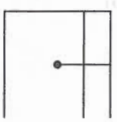
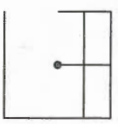
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

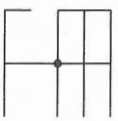
In accordance with I and II, which group of the weights below,when placed on the empty tray in III, will make the scale balance ?

A) ▲▲ B) ■■ C) ▲▲▲
D) ■▲▲ E) ■■▲

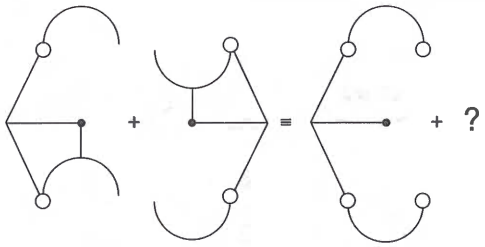
38.

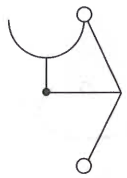
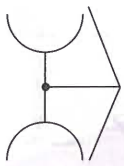
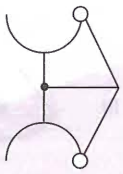


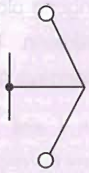
A)  B)  C) 

D)  E) 

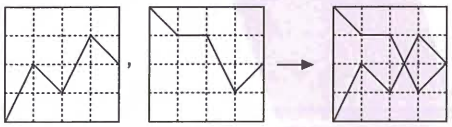
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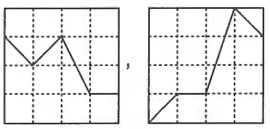


A) 
B) 
C) 

D) 
E) 

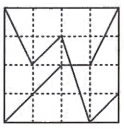
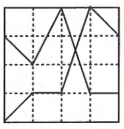
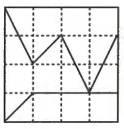
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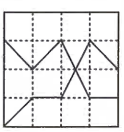
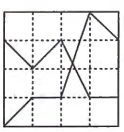
I. 

II.  ?

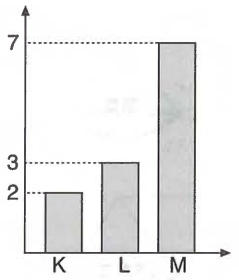
I. satırda belirlenen ilişkiye göre II. satırı aşağıdakilerden hangisi tamamlar?

Given the relationship established in I, which of the following figures completes II ?

A) 
B) 
C) 

D) 
E) 

41.

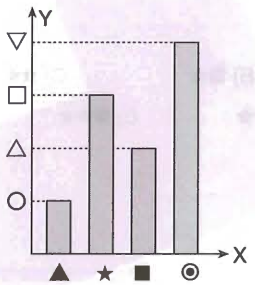


K + L + M = 840

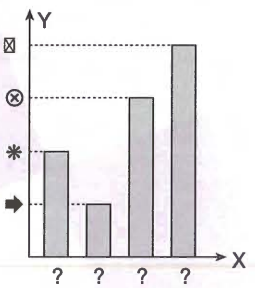
⇒ M = ?

A) 240 B) 320 C) 360 D) 420 E) 490

42.



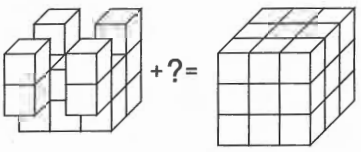
(▲, ○)
(★, □)
(■, △)
(◉, ▽)



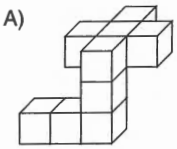
(✳, ✳)
(😐, ➡)
(⊥, ⊗)
(Ω, ⊠)

A) ✳ ⊥ 😐 Ω
B) ✳ 😐 ⊥ Ω
C) 😐 ✳ ⊥ Ω
D) Ω ✳ 😐 ⊥
E) 😐 Ω ✳ ⊥

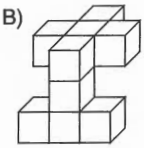
43.



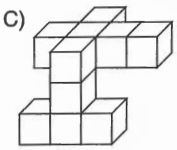
A)



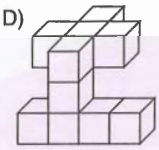
B)



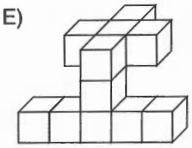
C)



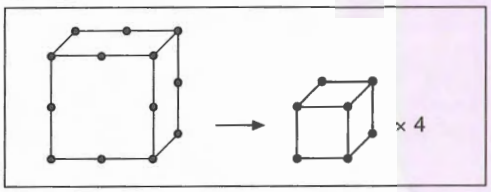
D)



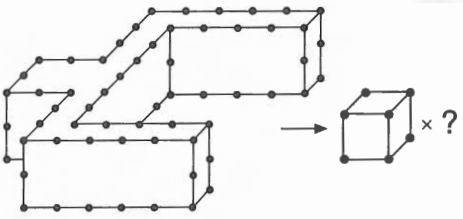
E)



EXAMPLE

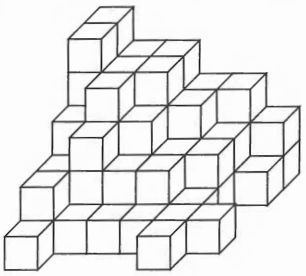


44.



A) 38 B) 39 C) 40 D) 41 E) 42

45.



Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above ?

A) 71 B) 72 C) 73 D) 74 E) 75

46. $-\{-(-[5-8])+2^3\}-[-(5-1)]^2 = ?$

A) – 27 B) – 21 C) – 11 D) – 8 E) 11

47. $\frac{3}{0,008}+\frac{1}{0,04} = ?$

A) 400 B) 240 C) 125 D) 80 E) 40

48. $a, b \in Z^+$

$(a+3)\cdot(b-5) = 17$

$\Rightarrow\ a+b = ?$

A) 21 B) 20 C) 17 D) 15 E) 13

49. $\dfrac{\left||-3|-|8|\right|}{|-2\cdot 3+1|} = ?$

A) $\frac{11}{5}$ B) $\frac{11}{7}$ C) $\frac{6}{7}$ D) 1 E) $\frac{5}{7}$

50. $(-2^4) + (2009^0) - (-1^{-1}) = ?$

A) –16 B) –14 C) – 8 D) 10 E) 16

51. $\dfrac{\sqrt{3}-3}{\sqrt{3}-1} = ?$

A) 3 B) $\sqrt{3}$ C) 1 D) $-\sqrt{3}$ E) –3

52. $(312)_4 = (abc)_5$

$\Rightarrow a+b+c = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

53. $n \in Z$

$\dfrac{(n+1)!}{(n-2)!} = 24 \qquad \Rightarrow n = ?$

A) 6 B) 5 C) 4 D) 3 E) 2

54. $5+\cfrac{7}{6+\cfrac{7}{6+\cfrac{7}{\ddots}}} = x$

$\Rightarrow x = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

55. $\dfrac{(-2^{-2})\cdot(-2)^4\cdot(-2)^3}{-2^1\cdot(-2)^3} = ?$

A) 4 B) 2 C) 1 D) –1 E) –2

56. $\dfrac{x^2-y^2}{x^2-2xy+y^2}\cdot\dfrac{x^2+xy-2y^2}{x^2+4xy+3y^2} = ?$

A) $\dfrac{x+2y}{3x-2y}$ B) $\dfrac{x+2y}{x+3y}$ C) $\dfrac{x+3y}{x-2y}$

D) $\dfrac{x+y}{x-y}$ E) $\dfrac{x-y}{x+y}$

57. $\dfrac{2x+y}{3x-2y} = \dfrac{3}{5} \Rightarrow \dfrac{x+y}{x-y} = ?$

A) $\dfrac{5}{6}$ B) 1 C) $\dfrac{6}{5}$ D) $\dfrac{7}{3}$ E) $\dfrac{11}{5}$

58. $\log_5(2x-3) - \log_5(3x-8) = 0$

$\Rightarrow \log_x 5 = ?$

A) 0 B) 1 C) 3 D) 4 E) 5

59. $(a+b-9)^2 + (a-b-7)^2 = 0$

$\Rightarrow a^2 - b^2 = ?$

A) 64 B) 63 C) 48 D) 40 E) 25

60. $\dfrac{\sin x + \sin(3x) + \sin(5x)}{\cos x + \cos(3x) + \cos(5x)} = ?$

A) sin(3x) B) cos(3x) C) cot(3x)

D) tan(3x) E) tan(9x)

61. $x^2 + \frac{x}{x-2} = \frac{2}{x-2} + 5$

$\Rightarrow$ S.S = ?

A) {2} B) {–2} C) {2, –2}

D) {1} E) {0}

62. $\sin 15° \cdot \sin 75° = ?$

A) $\frac{6}{7}$ B) $\frac{3}{4}$ C) $\frac{1}{2}$ D) $\frac{1}{3}$ E) $\frac{1}{4}$

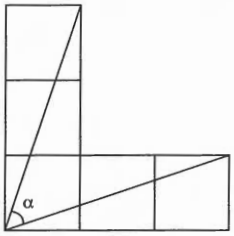
63. $i^2 = -1$

$\Rightarrow (1 + i^2)^3 + (1 + i)^2 = ?$

A) 1 – i B) 1 + i C) 2i

D) 8 – 2i E) 8 + 2i

64.



$\Rightarrow \tan\alpha = ?$

A) $\frac{1}{4}$ B) $\frac{4}{3}$ C) $\frac{2}{3}$ D) $\frac{3}{4}$ E) 1

65. $\sum_{j=1}^{2} \sum_{i=1}^{2} (2i + 3j) = ?$

A) 5 B) 6 C) 12 D) 18 E) 30

66. $f(2x + 1) = x^2 - 2x + 7$

$\Rightarrow f'(7) = ?$

A) 2 B) 3 C) 4 D) 6 E) 12

67. $\lim\limits_{x\to\frac{\pi}{3}}\left(\dfrac{2\cos x-1}{\tan x-\sqrt{3}}\right)=?$

A) $-\dfrac{1}{4}$ B) $-\dfrac{\sqrt{3}}{2}$ C) $-\dfrac{\sqrt{3}}{4}$ D) -3 E) -4

68. $f(x)=5^x+x^5$
$\Rightarrow f'(0)=?$

A) 0 B) ln5 C) 5ln5 D) 25 E) 1

69. $\lim\limits_{x\to\infty}\left(\sqrt{x^2+4x+1}-\sqrt{x^2-6x-7}\right)=?$

A) -1 B) 1 C) 3 D) 5 E) 10

70. $\int_0^1 (x^2+3x)^3(2x+3)dx=?$

A) 256 B) 64 C) 32 D) 16 E) 8

71. $\int_{\frac{\pi}{2}}^{\pi}\sqrt{1-\sin^2 x}\,dx=?$

A) -1 B) 0 C) 1 D) $\sqrt{3}$ E) 2

72. $\begin{vmatrix}1&2&3\\0&-1&4\\1&0&2\end{vmatrix}=?$

A) 1 B) 4 C) 6 D) 7 E) 9

73. $\int_{-4}^{4} \sqrt{16 - x^2}\, dx = ?$

A) 0 B) 4π C) 8π D) 12π E) 16π

74. $\vec{U} = (2, 3, -1)$ $\quad \vec{U} \perp \vec{V}$

$\vec{V} = (4, 5, a)$ $\quad \Rightarrow a = ?$

A) 0 B) 7 C) 15 D) 18 E) 23

75.
$$A = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}, \quad B = \begin{bmatrix} x & y \\ z & t \end{bmatrix}$$

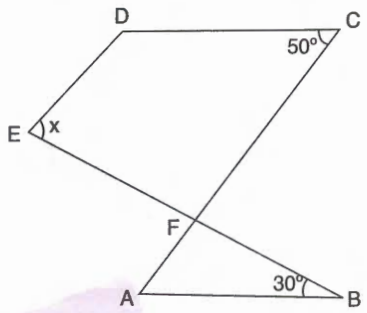
$A \cdot B = A - B$

$\Rightarrow B = ?$

A) $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ B) $\begin{bmatrix} 2 & 0 \\ 0 & 2 \end{bmatrix}$ C) $\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$

D) $\begin{bmatrix} \frac{1}{2} & 0 \\ 0 & \frac{1}{2} \end{bmatrix}$ E) $\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$

76.



[DC] // [AB]

[DE] // [AC]

$m(\widehat{DCA}) = 50°$

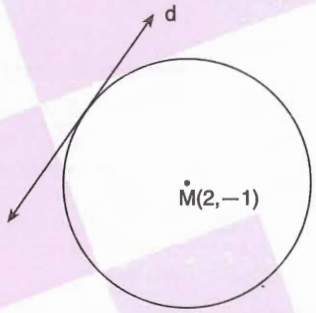
$m(\widehat{EBA}) = 30°$

$m(\widehat{DEB}) = x$

$\Rightarrow x = ?$

A) 40 B) 50 C) 60 D) 80 E) 90

77.



M Merkez (center)

d: $3x - 4y = 0$

$(x - a)^2 + (y - b)^2 = r^2$

$\Rightarrow$ Çemberin denklemi aşağıdakilerden hangisidir ?

Which of the followings is equation of the circle?

A) $(x - 2)^2 + (y + 1)^2 = 4$

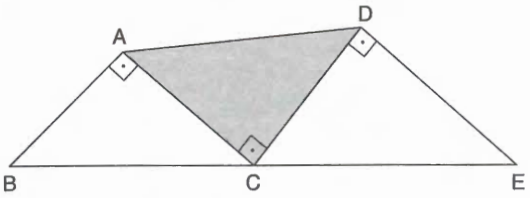
B) $(x - 2)^2 + (y + 1)^2 = 2$

C) $(x + 2)^2 + (y - 1)^2 = 4$

D) $(x - 1)^2 + (y - 2)^2 = 4$

E) $(x + 1)^2 + (y + 2)^2 = 2$

78.



[BA] ⊥ [AC]

[AC] ⊥ [CD]

[CD] ⊥ [DE]

|BC| = |CE|

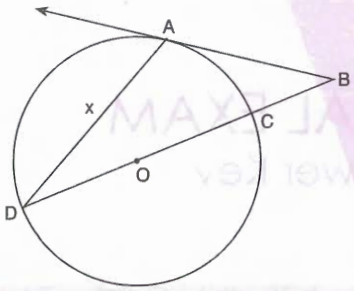
|AB| = 8 br

|DE| = 12 br

⇒ A(ACD) = ?

A) 60 B) 48 C) 40 D) 36 E) 30

79.



[BA , A noktasında çembere teğettir.

[BA is tangent to the circle at the point A.

O merkezli çember *(A circle with a center O)*

|DO| = $\sqrt{3}$ br

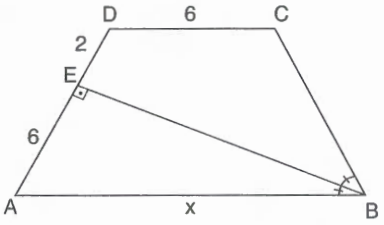
|AB| = 3 br

|AD| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) $2\sqrt{3}$ E) $3\sqrt{3}$

80.



$m(\widehat{ABE}) = m(\widehat{EBC})$

[AB] // [DC]

[BE] ⊥ [AD]

|DE| = 2 br

|AE| = 6 br

|DC| = 6 br

|AB| = x

⇒ x = ?

A) 14 B) 15 C) 16 D) 17 E) 18

goo.gl/oouUoo Yös Lovers L

DENEME SINAVI 04 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C	E	C	C	E	D	E	C	E	C	C	D	A	E	A	D	E	C	E	A

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
A	E	E	D	E	C	B	A	D	C	E	E	A	C	A	D	B	D	B	E

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
E	B	B	C	C	B	A	B	D	B	D	C	D	B	B	B	A	B	B	D

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
B	E	C	B	E	A	C	B	D	B	C	E	C	E	D	D	A	B	C	E

DENEME SINAVI 05
TRIAL EXAM 05

1.

I	II
△ □ ○ ○ ▣ ◇ △ □ □ ✱ ○ ▣ ✱ ○ ▣ ◇ ◇ △ □ ✱	1234 2345 3466 4561 5612

⇒ ◇△□✱ = ?

I. gruptaki kümelerin şekilleri birer rakam ile gösterilerek II. gruptaki sayılar elde edilmiştir. Buna göre ◇△□✱ hangi sayı ile gösterilmiştir?

The numbers in group II stand for the sets of the figures in group I when each figure has been coded with a specific number. Which number correspnods to ◇△□✱ ?

A) 5612 B) 4561 C) 3466 D) 2345 E)1234

2.

I	II
○✱◇ ✱◇△ △□○ ◇○△ □✱○	521 415 134 231 345

⇒ △□○ = ?

I. gruptaki kümelerin şekilleri birer rakam ile gösterilerek II. gruptaki sayılar elde edilmiştir. Buna göre △□○ hangi sayı ile gösterilmiştir?

The numbers in group II stand for the sets of the figures in group I when each figure has been coded with a specific number. Which number correspnods to △□○?

A) 521 B) 415 C) 345 D) 231 E) 134

3.

I	II
E L İ M L E K E E K İ M E L E K İ L İ K	4146 2126 2143 1262 2643

⇒ EKİM = ?

I. gruptaki kümelerin harfleri birer rakam ile gösterilerek II. gruptaki sayılar elde edilmiştir. Buna göre EKİM hangi sayı ile gösterilmiştir?

The numbers in group II stand for the sets of the figures in group I when each figure has been coded with a specific number. Which number correspnods to EKİM ?

A) 4146 B) 2126 C) 2143 D) 1262 E) 2643

4.

I.	5	10	7	12	9	14	11
II.	5	2	7	4	9	6	11
III.	27	9	18	6	12	4	8
IV.	?	?	?	?	?	?	?

I. sayı dizisi ile II. sayı dizisi arasında belli bir ilişki vardır. III. sayı dizisi ile aşağıdakilerden hangisi arasında buna benzer bir ilişki vardır?

The first two number sequences are related the each other in a special way. Which one of the number sequences below relates to III as II relate to I ?

A) 27, 54, 18, 36, 12, 24, 8
B) 27, 1, 18, 28, 12, 16, 8
C) 27, 36, 18, 24, 12, 16, 8
D) 27, 30, 15, 18, 9, 12, 4
E) 27, 81, 9, 27, 81, 9, 27

5.

$$\begin{array}{r} KLM \\ \times\ \ 29 \\ \hline \bullet\ \bullet\ \bullet\ \bullet \\ +\ 6\ 5\ 2 \\ \hline \bullet\ N\ \bullet\ 4 \end{array} \quad \Rightarrow K+L+M-N=?$$

A) 1 B) 2 C) 3 D) 5 E) 7

6. $\frac{ABAB}{AB}+\frac{AAA}{A}+\frac{BB}{B}=?$

A) 123 B) 133 C) 153 D) 203 E) 223

7.

$$\begin{array}{r} KLM \\ \times\ \ LM \\ \hline PLM \\ +\ LM0 \\ \hline 31LM \end{array} \quad \Rightarrow K+L+M=?$$

A) 12 B) 11 C) 10 D) 9 E) 8

8. I. $6 \diamondsuit 2 = 24$
II. $1 \diamondsuit 4 = 15$
III. $7 \diamondsuit 6 = 39$
IV. $8 \diamondsuit 7 = ?$

Yukarıdaki eşitliklerde $\diamondsuit$ işaretinin görevi aynıdır. Buna göre IV. eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the functions of $\diamondsuit$ remains unchanged. What does the question mark stand for in the fourth equation ?

A) 30 B) 40 C) 42 D) 45 E) 60

9. I. $3 \boxdot 7 = 12$
II. $9 \boxdot 6 = 40$
III. $5 \boxdot 8 = 28$
IV. $a \boxdot b = ?$

Yukarıdaki dört eşitlikte $\boxdot$ işaretinin görevi aynıdır. Buna göre IV. eşitlikte soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

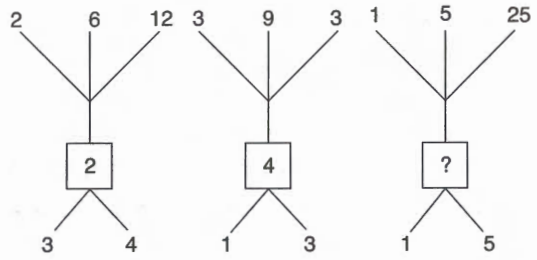
In the equations above, the function of $\boxdot$ remains unchanged. What does the question mark stand for in the fourth equation ?

A) $2(a+b)$ B) a^2-b^2 C) $(a+1)(b-a)$ D) $(a-1)(b-1)$ E) $a(b-2)$

10. I. $6 \triangle 4 = 34$
II. $8 \triangle 3 = 35$
III. $6 \square 4 = 22$
IV. $8 \square 3 = 19$
V. $(9 \triangle 5) - (9 \square 5) = ?$

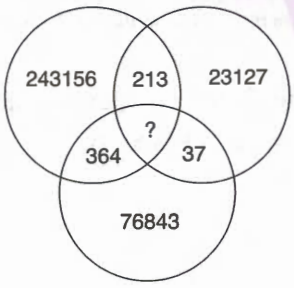
A) 20 B) 19 C) 18 D) 17 E) 16

11.



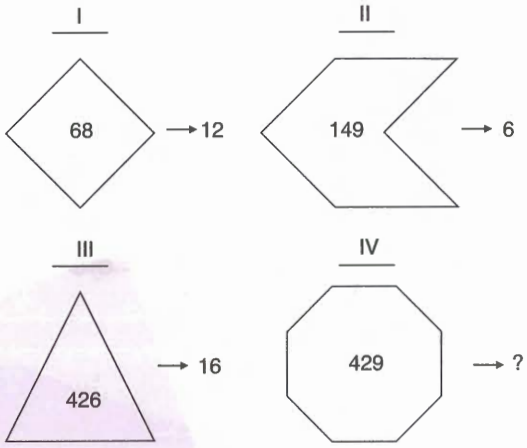
A) 2 B) 3 C) 4 D) 5 E) 6

12.



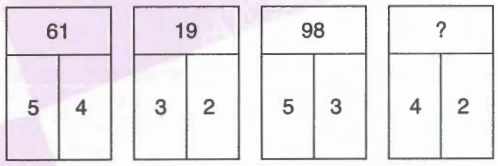
A) 36 B) 23 C) 12 D) 7 E) 3

13.



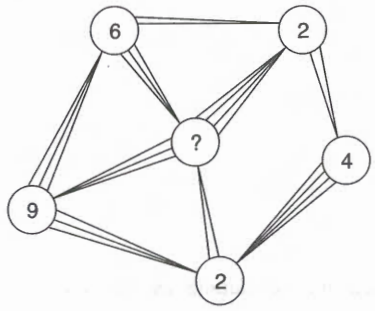
A) 3 B) 9 C) 18 D) 36 E) 72

14.



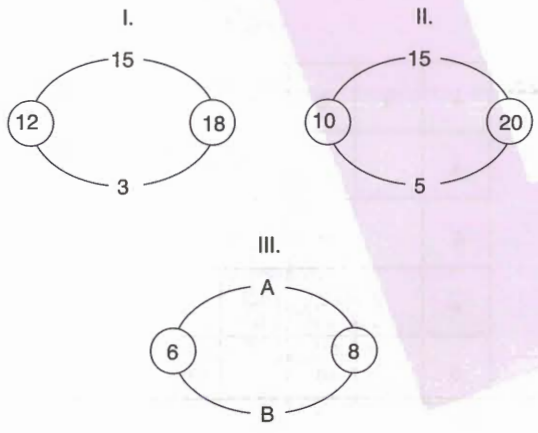
A) 56 B) 49 C) 39 D) 32 E) 24

15.



A) 3 B) 6 C) 7 D) 9 E) 12

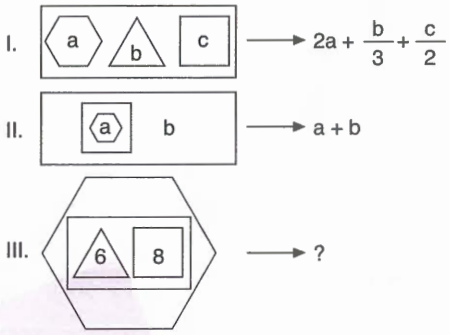
16.



(A, B) = (?, ?)

A) (6, 2) B) (6, 1) C) (7, 1)
D) (7, 2) E) (8, 1)

17.

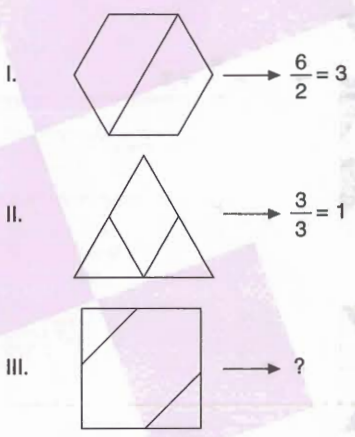


I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

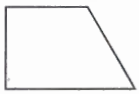
Which of the figures below completes III in accordance with the relationship established in I and II ?

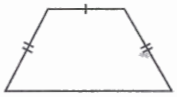
A) 12 B) 14 C)16 D) 26 E) 34

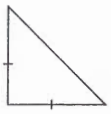
18.

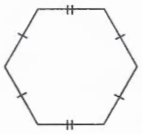


A) $\frac{5}{3}$ B) $\frac{4}{2}$ C) $\frac{4}{3}$ D) $\frac{4}{5}$ E) $\frac{3}{4}$

19. I.  → 4

II.  → 3

III.  → 2

IV.  → ?

I, II ve III. satırlarda belirlenen ilişkiye göre, IV. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes IV, in accordance with the relationship established in I, II and III ?

A) 8 B) 6 C) 4 D) 2 E) 1

20. I.  → $4-\frac{8}{4}=2$

II.  → $6-\frac{8}{2}=2$

III.  → ?

I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Given the relationship established in I and II, which of the numbers below completes III ?

A) 2 B) 3 C) 4 D) 5 E) 6

21.

+	a	b	c
a			10
b			

x	a	b	c
a		18	
b			12

⇒ a · b · c = ?

Yukarıdaki toplama ve çarpma tablolarında a, b ve c harfleri belli berir sayının yerine kullanılmıştır. Buna göre a·b·c nin değeri kaçtır?

In the summation and multiplication tables above, the letters a,and c each stand for a specific numeral. What is the value of a·b·c ?

A) 24 B) 36 C) 48 D) 62 E) 72

22.

+	a	b	c	d
a				
b		a+c		
c		5	a	
d		a		c

⇒ (a + b) – (c + d) = ?

Yukarıdaki toplama tablosunda a, b, c ve d harfleri belli birer sayının yerine kullanılmıştır. Buna göre (a + b) – (c + d) kaçtır?

In the summation table above, the letters a, b, c and d each stand for a specific number. What is the value of (a + b) – (c + d) ?

A) 0 B) 1 C) 2 D) 3 E) 4

23.

+	a	b	c
a			
b		c	
c			d

x	a	b	c
a			
b		c	d
c			e

$\Rightarrow e - d = ?$

Yukarıdaki çarpma ve toplama tablolarında a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre e – d kaçtır?

In the multiplication and summation tables above, the letters a, b and c each stand for a specific number. What is the value of e – d?

A) 2 B) 3 C) 4 D) 6 E) 8

24.

▲ \ ●	→			
↓	8	13	10	15
	11	16		B
	14		16	C
	17	A		24

$\Rightarrow A + B - C = ?$

Yukarıdaki tablo, satırlar için ●, sütunlar için ▲ işlemlerine göre düzenlenmiştir. Buna göre, soru işaretinin yerine hangi sayı gelmelidir?

The table above is organized according to the ● operation for the rows and the ▲ operation for the columns. Which number does the question mark stand for?

A) 19 B) 20 C) 22 D) 30 E) 36

25.

X	M	N	E
M	M	N	E
N	N	K	L
E	E	L	F

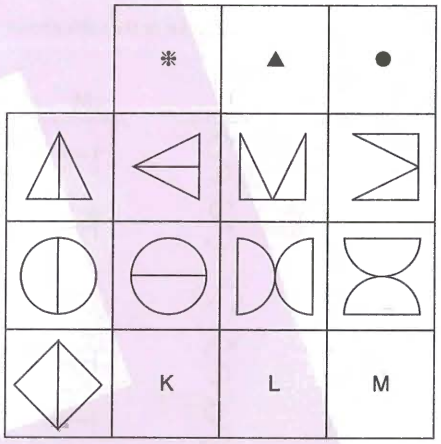
$F - K = 48$

$E - N = 4$

$\Rightarrow \left[\frac{4 \cdot M + E}{N}\right]^3 = ?$

A) 8 B) 27 C) 64 D) 125 E) 216

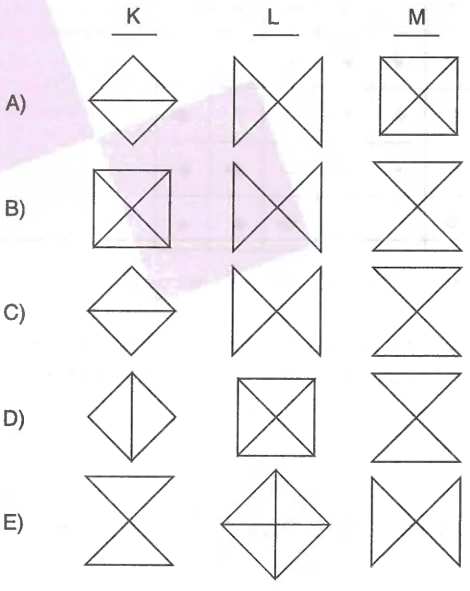
26.



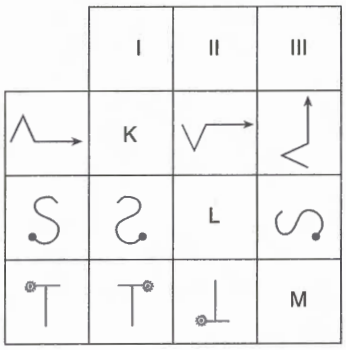
K = ? L = ? M = ?

Yukarıdaki tabloda K, L ve M nin yerine hangi şekiller gelmelidir?

Which figures do K, L and M stand for in the table above ?



27.



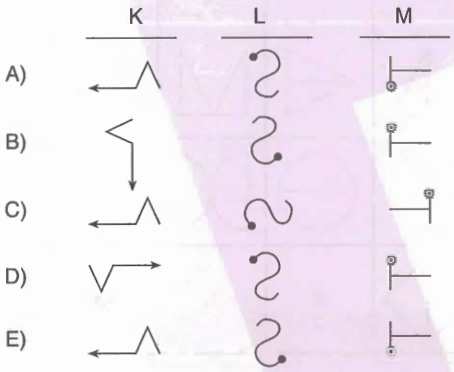
K = ?

L = ?

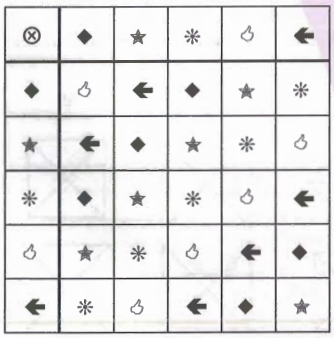
M = ?

Yukarıdaki tabloda K, L ve M nin yerine hangi şekiller gelmelidir?

Which figures do K, L and M stand for in the table above?



28.



[(◆ ⊗ ♁) ⊗ ?] ⊗ (✳ ⊗ ✳) = ✳

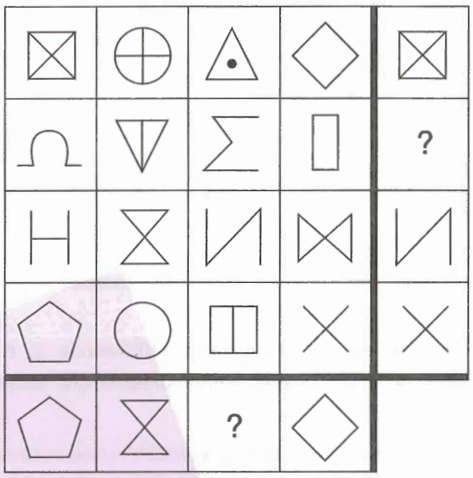
Yukarıdaki tabloda ⊗ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ⊗ operation established in the table above, which of the following does the question mark stand for ?

A) (◆ ⊗ ★) B) (◆ ⊗ ✳) C) (⬅ ⊗ ★)

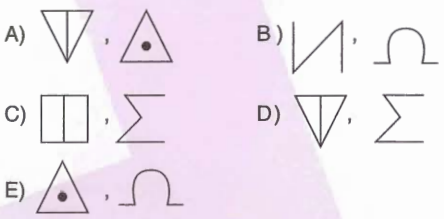
D) (♁ ⊗ ◆) E) (✳ ⊗ ✳)

29.

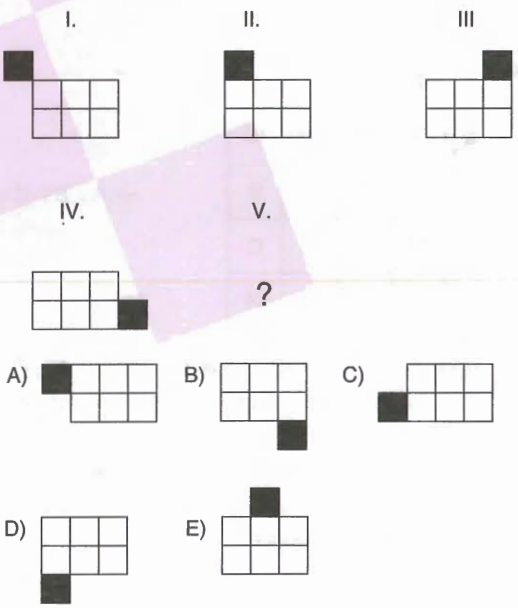


Yukarıda belirlenen kurala göre soru işaretlerinin yerine aşağıdakilerden hangisi gelmelidir?

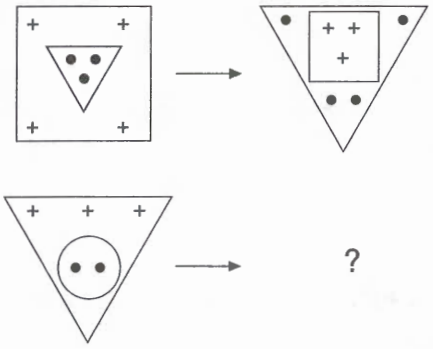
According to the rule in the figure above, which of the followings stand for in question marks ?

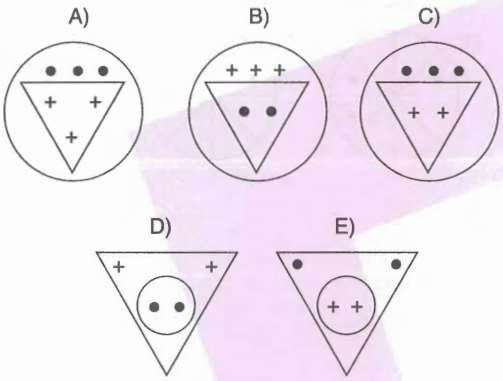


30.

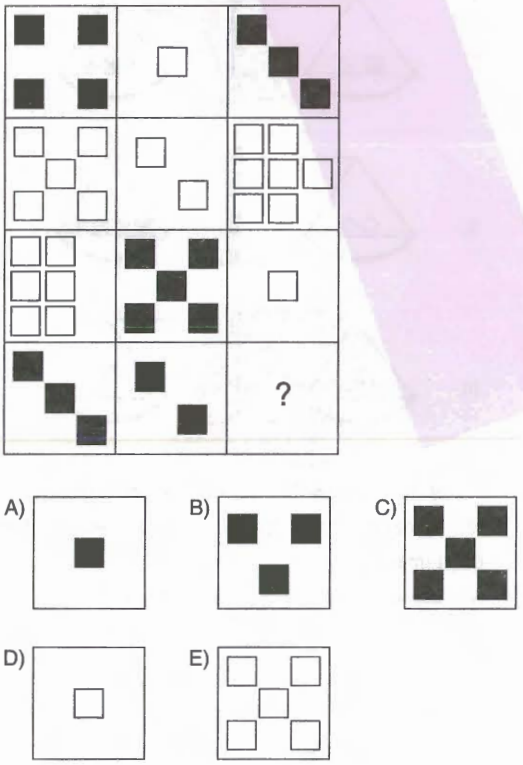


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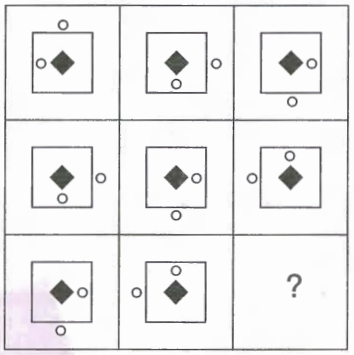


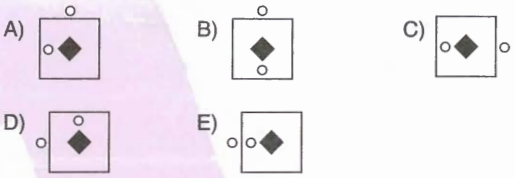


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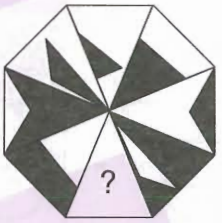


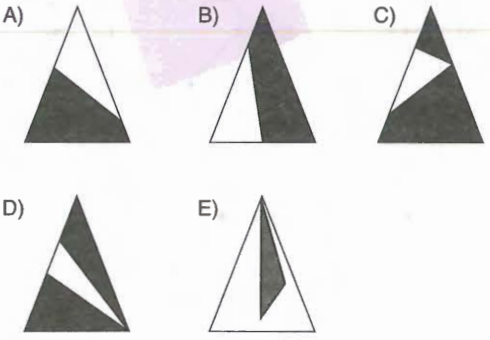
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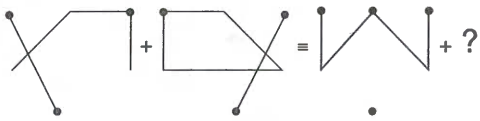
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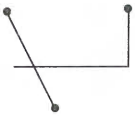
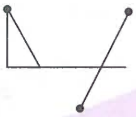


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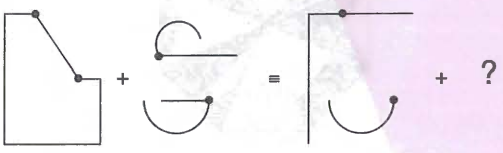
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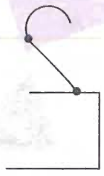


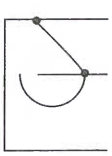
A) 
B) 
C) 

D) 
E) 

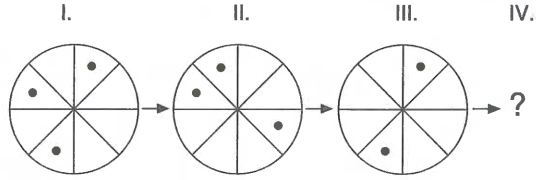
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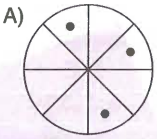
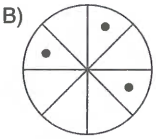
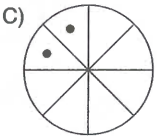


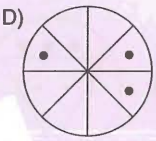
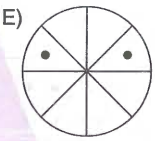
A) 
B) 
C) 

D) 
E) 

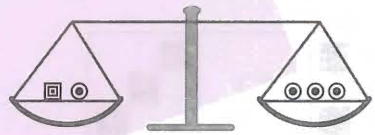
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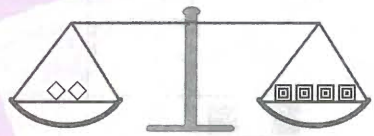


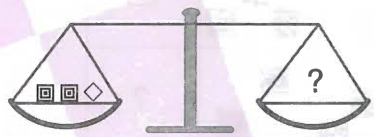
A) 
B) 
C) 

D) 
E) 

38

I. 

II. 

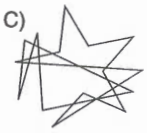
III. 

Yukarıdaki terazilerin üçü de dengede olduğuna göre, III. terazide soru işareti aşağıdakilerden hangisini göstermektedir?

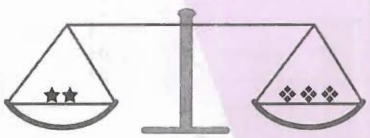
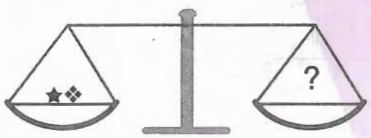
All three scales above are in balance. Which of the following does the question mark stand for in the third scale?

A) ⊙⊙◇ B) ⊙⊙⊙⊙ C) ◇▣◇
D) ◇⊙ E) ◇◇

39. Aşağıdakilerden hangisi diğerlerinden farklıdır?
Which of the followings is different ?

A) 
B) 
C) 
D) 
E) 

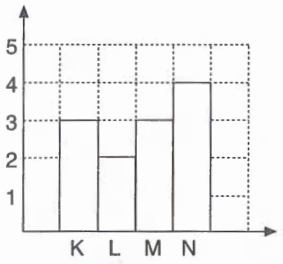
40.

I. 
II. 
III. 

Yukarıdaki terazilerin üçü de dengede olduğuna göre, III. terazide soru işareti aşağıdakilerden hangisini göstermektedir?
All three scales above are in balance. Which of the following does the question mark stand for in the third scale ?

A) ●●●★ B) ●●●●● C) ●●●●❖
D) ❖❖ E) ●●❖❖

41.

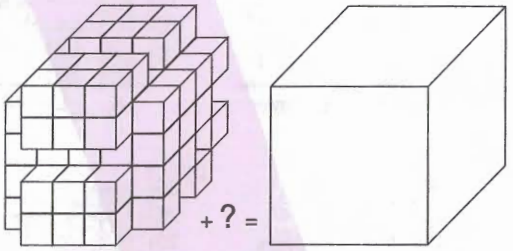


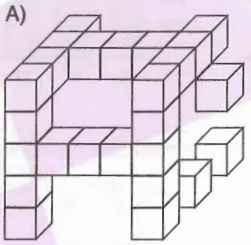
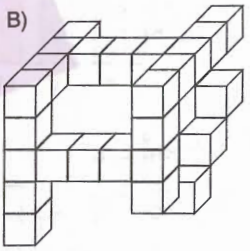
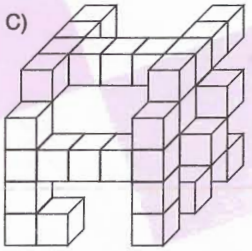
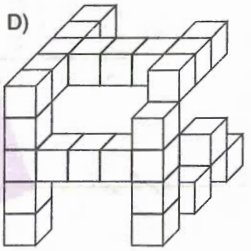
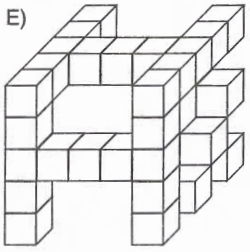


K → a° = ?
L → b° = ?
M → c° = ?
N → d° = ?

	a°	b°	c°	d°
A)	90	60	180	30
B)	72	108	144	36
C)	90	60	90	120
D)	108	72	36	144
E)	108	126	72	54

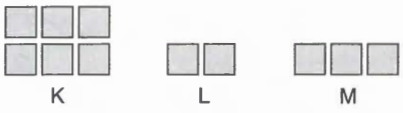
42.

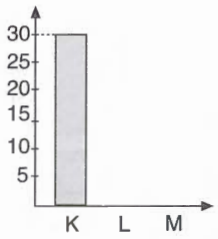


A) 
B) 
C) 
D) 
E) 

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43.



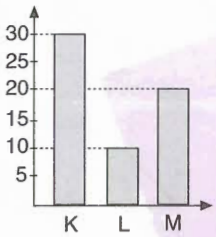


K = 30

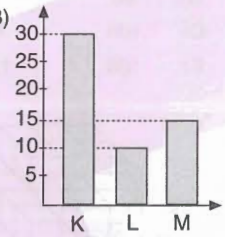
L=?

M =?

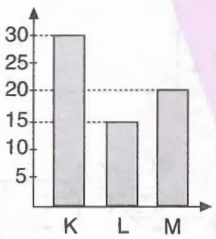
A)



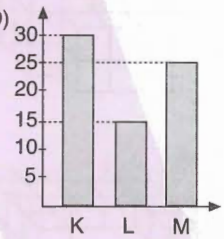
B)



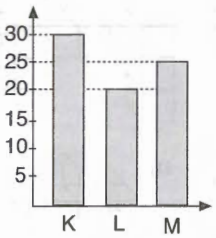
C)



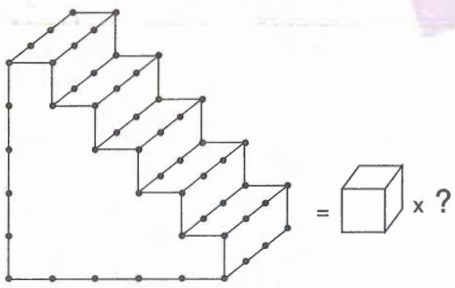
D)



E)



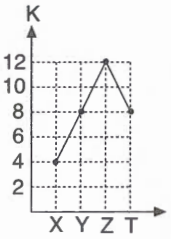
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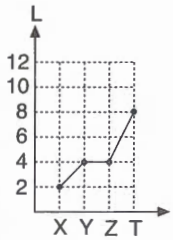


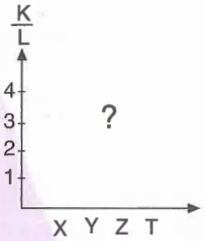
= x ?

A) 45 B) 47 D) 49 D) 51 E) 53

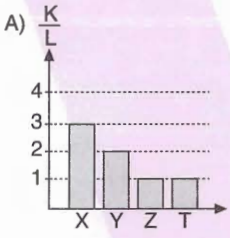
45.



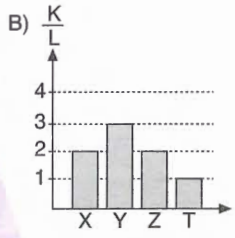




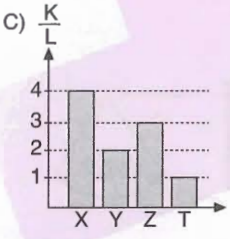
A)



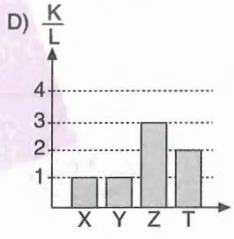
B)



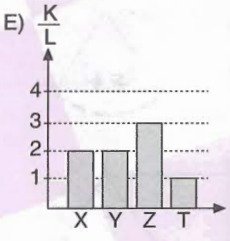
C)



D)



E)



46. $4 - 3 \cdot (4 + 3) - 6 : 2 = ?$

A) -20 B) -14 C) -4 D) 0 E) 4

47. $\dfrac{\left(\dfrac{0,2}{1,4} - 1\right) : \dfrac{0,06}{0,14}}{\dfrac{0,3}{3} + 0,9} = ?$

A) -2 B) -4 C) -6 D) -7 E) -8

48. $\dfrac{0,9 \cdot 10^{-2} + 0,03 \cdot 10^{-1}}{1,2 \cdot 10^{-1}} = ?$

A) 10^{-2} B) 10^{-1} C) 1 D) 10 E) 10^{2}

49. $6^x = 4$

$\Rightarrow (0,5)^{2-x} \cdot 3^{x+1} = ?$

A) $\dfrac{4}{32}$ B) $\dfrac{1}{4}$ C) $\dfrac{3}{7}$ D) 3 E) 20

50. $3 \cdot 2^{x+2} + 4 \cdot 2^x = 16$

$\Rightarrow x = ?$

A) 2 B) 1 C) 0 D) -1 E) -2

51. $a, b, c \in Z^+$

$\dfrac{a}{b} = \dfrac{b}{c}$

$a \cdot b \cdot c = 27$

$\Rightarrow \max(a+c) = ?$

A) 4 B) 6 C) 10 D) 12 E) 26

52. $A = 2 + 4 + 6 + ... + 62$

$B = 1 + 3 + 5 + ... + 31$

$\Rightarrow A - 2B = ?$

A) 550 B) 50 C) 480 D) – 240 E) – 480

53. $K, L, M \in Z^+$

K | L
– | 5
2

L | M
– | 4
3

$\Rightarrow \frac{K + L + 6M - 20}{6M} = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

54. $(211)_4 - (112)_4 = (ab)_4$

$\Rightarrow (ab) = ?$

A) 33 B) 31 C) 30 D) 23 E) 13

55. $\frac{a}{2} = \frac{b}{c} = \frac{c}{3}$ $\Rightarrow \frac{(a+c)\cdot c}{b} = ?$

A) $\frac{3}{4}$ B) $\frac{5}{3}$ C) 4 D) 5 E) 6

56. $x = \sqrt{17 + 2\sqrt{72}}$ $\Rightarrow \frac{1}{x} + x = ?$

A) $6\sqrt{2}$ B) 6 C) $4\sqrt{3}$ D) $4\sqrt{2}$ E) $3\sqrt{2}$

57. $\sqrt{2003 \cdot 1995 + 16} = ?$

A) 1995 B) 1999 C) 2003 D) 16 E) 0

58. $\frac{a^3+b^3}{a-b} : \frac{a^2-ab+b^2}{5a-5b} = 75 \quad \Rightarrow a+b=?$

A) 12 B) 14 C) 15 D) 16 E) 18

59. $x < 0 < y$

$\Rightarrow \frac{4|x-y|}{|y+|x||} = ?$

A) $-4x$ B) $-4y$ C) $4(x+y)$

D) -4 E) 4

60. $x, y \in R$

$-2 < x < 4$

$1 < y < 3$

$\Rightarrow ? < x-2y < ?$

A) $-2 < x-2y < 8$ B) $2 < x-2y < 8$

C) $-8 < x-2y < 2$ D) $-8 < x-2y < -2$

E) $1 < x-2y < 4$

61. $\frac{x+2}{x^2-5x+6} = \frac{A}{x-2} + \frac{B}{x-3} \quad \Rightarrow 3A+2B=?$

A) 2 B) 1 C) -1 D) -2 E) -3

62. $f(2x-3) = 3x+5$

$\Rightarrow f^{-1}(x) = ?$

A) x B) $\frac{2x-1}{4}$ C) $\frac{3x+1}{5}$

D) $\frac{2x-19}{3}$ E) $x+2$

63. $x^2 + 6x + m + 4 = 0$

$S.S = \{x_1, x_2\}$

$x_1 = 5x_2$

$\Rightarrow m = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

64. $P(x+1) = 2x^2 - 3x + 7$

$\Rightarrow P(x-1) = ?$

A) $2x^2 - 8$ B) $x^2 - 3x + 5$

C) $2x^2 - 11x + 21$ D) $2x^2 + x + 9$

E) $2x^2 + 7x - 9$

65. $0 < x < 90°$

$$\Rightarrow 1 + \frac{\sin(\pi - x) \cdot \cos\left(\frac{3\pi}{2} + x\right)}{\tan(\pi + x) \cdot \tan\left(\frac{\pi}{2} + x\right)} = ?$$

A) $\sin^2 x$ B) $\cos^2 x$ C) $\sin(2x)$

D) $\tan^2 x$ E) $\cot^2 x$

66. $\cos 40° = \frac{a}{2}$

$$\Rightarrow \frac{\sin 60°}{\sin 20°} + \frac{\cos 60°}{\cos 20°} = ?$$

A) $\frac{a}{2}$ B) a C) 2a D) 4a E) 6a

67. $0 < x < \frac{\pi}{2}$

$\sin(\arcsin(x)) + \operatorname{arccot}(\tan(90° - x)) = \frac{\pi}{2}$

$\Rightarrow x = ?$

A) $\frac{\pi}{12}$ B) $\frac{\pi}{6}$ C) $\frac{\pi}{4}$ D) $\frac{\pi}{3}$ E) $\frac{5\pi}{12}$

68. $2^n = a$

$\log_a 16^2 = n^2$

$\Rightarrow n = ?$

A) 6 B) 5 C) 4 D) 2 E) 1

69. $\log(x \cdot y) = 2a$

$\log\left(\frac{x}{y}\right) = 2b$

$\Rightarrow x = ?$

A) $10^{a \cdot b}$ B) $10^{(a+b)}$ C) $10^{2(a+b)}$

D) 10^{a-b} E) 10^{b-a}

70. $\lim_{x \to 1} \left(\frac{x^4 + 3x^2 - 2x - 2}{x^3 - 1} \right) = ?$

A) 3 B) $\frac{8}{3}$ C) $\frac{13}{3}$ D) 2 E) $\frac{7}{4}$

71. $f(x) = \sqrt{3x + 4}$

$\Rightarrow f'(4) = ?$

A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $\frac{3}{16}$ D) $\frac{3}{8}$ E) $\frac{1}{8}$

72. $f(x) = (x^2 + 1)^3 \cdot (3x + 5)$

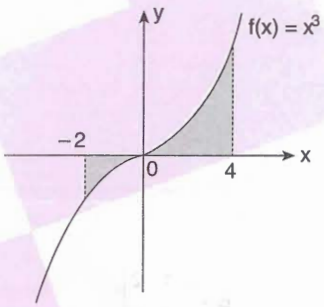
$\Rightarrow f'(1) = ?$

A) 216 B) 192 C) 96 D) 86 E) 48

73. $\int_{e^4}^{e^8} \frac{\ln x}{x} dx = ?$

A) 4 B) ln2 C) 24 D) ln4 E) 48

74.



Taralı alan *(Shadead Area)* = ?

A) 60 B) 63 C) 64 D) 65 E) 68

75. $\begin{vmatrix} -2 & -6 & 10 \\ 3 & 2 & 7 \\ -1 & -3 & 5 \end{vmatrix} = ?$

A) -8 B) 0 C) 6 D) 8 E) 10

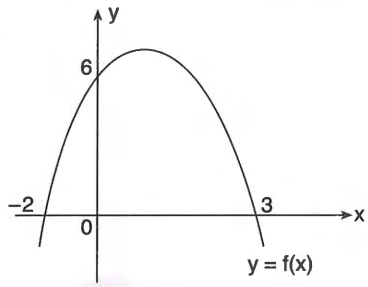
76. $A = \begin{bmatrix} 4 & 3 \\ -2 & -1 \end{bmatrix}$ $B = \begin{bmatrix} -1 & 2 \\ -3 & 4 \end{bmatrix}$

$C = A + B$

$\Rightarrow c_{12} + c_{22} = ?$

A) -4 B) 1 C) 6 D) 8 E) 10

77.



$\Rightarrow y = f(x) = ?$

A) $y = f(x) = -x^2 - x + 1$

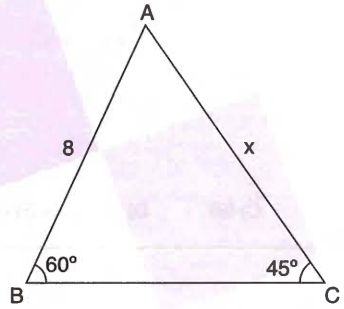
B) $y = f(x) = -2x^2 + 3x + 6$

C) $y = f(x) = -x^2 + x + 6$

D) $y = f(x) = -x^2 + 2x + 6$

E) $y = f(x) = -x^2 + 6$

78.



$m(\widehat{ABC}) = 60°$

$m(\widehat{ACB}) = 45°$

$|AB| = 8$ br

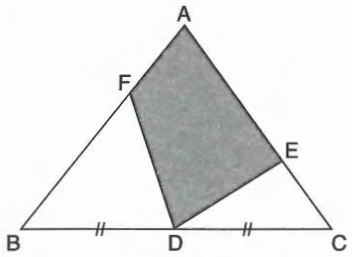
$|AC| = x$

$\Rightarrow x = ?$

A) 4 B) $4\sqrt{3}$ C) $4\sqrt{6}$

D) 12 E) $12\sqrt{3}$

79.



$|BD| = |DC|$

$|AE| = 5|EC|$

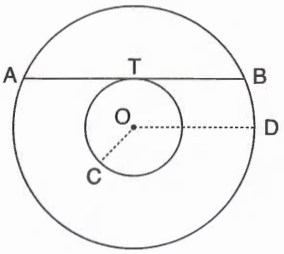
$|AF| = \frac{1}{5}|AB|$

$A(AFDE) = 62\ br^2$

$\Rightarrow A(ABC) = ?$

A) 120 B) 108 C) 90 D) 72 E) 60

80.



[AB] kirişi T noktasında çembere teğettir.

The chord [AB] is tangent to the circle at the point T.

O merkezli çember

(Circles with a center O)

$|OC| = 5$ br

$|OD| = 13$ br

$\Rightarrow |AB| = ?$

A) 12 B) 16 C) 18 D) 20 E) 24

DENEME SINAVI 05 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
D	A	E	A	E	E	E	D	D	C	B	E	B	A	E	C	A	C	D	A

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
E	E	E	A	B	C	A	C	D	D	C	C	A	C	B	C	D	E	E	B

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	E	B	A	E	A	A	B	D	C	C	C	C	A	D	B	B	C	E	C

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
D	D	D	C	B	C	C	D	B	B	D	A	C	E	B	D	C	C	A	E

DENEME SINAVI 06

TRIAL EXAM 06

1. $4 + \bigstar = \square$

$\square + \bigcirc = 12$

$\bigcirc + 7 = 10$

$\Rightarrow \bigstar = ?$

A) 3 B) 5 C) 7 D) 9 E) 12

2.
$$\begin{array}{r} K\,K\,L\,2 \\ +\quad L\,K\,L \\ \hline 6\,2\,6\,9 \end{array}$$

$\Rightarrow K + L = ?$

A) 4 B) 5 C) 7 D) 9 E) 12

3. $\dfrac{AB + BC + CA}{AA + BB + CC} = ?$

A) 1 B) 2 C) 11 D) 22 E) 33

4.
$$\begin{array}{r} K\,L\,M \\ \times\quad K\,G \\ \hline M\,M\,M \\ +\quad K\,L\,M \\ \hline N\,P\,G\,M \end{array}$$

$\Rightarrow N + P = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

5.
$$\begin{array}{r} 4\,K \\ \times\quad L\,M \\ \hline 3\,4\,3 \\ +\quad K\,8 \\ \hline 1\,3\,L\,3 \end{array}$$

$\Rightarrow K + L + M = ?$

A) 18 B) 20 C) 22 D) 23 E) 24

6. I. $x \bigstar y = 2x \odot y^2$

II. $a \odot b = 4a \blacksquare b$

III. $a \blacksquare b = a + 2b$

IV. $(1 \bigstar 2) \blacksquare (2 \odot 3) = ?$

Yukarıdaki iki eşitlikte $\bigstar$, $\odot$ ve $\blacksquare$ işaretlerinin görevleri verilmiştir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

In the equations above, the functions of $\bigstar$, $\odot$ and $\blacksquare$ are given. What does the question mark stand for in the fourth equation ?

A) 39 B) 42 C) 44 D) 47 E) 52

7. I. $x \boxdot y = 2x + y$

II. $x \circledcirc y = \dfrac{x + 4y}{3}$

III. $(4 \circledcirc 2) \boxdot (5 \circledcirc 1) = ?$

Yukarıdaki iki eşitlikte $\boxdot$ ve $\circledcirc$ işaretlerinin görevleri verilmiştir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

In the equations above, the functions of $\boxdot$ and $\circledcirc$ are given. What does the question mark stand for in the third equation?

A) 7 B) 9 C) 11 D) 12 E) 15

8. I. $a \circledcirc b = (a+1) \star (b-1)$
II. $x \star y = x^2 + y$
III. $(2 \circledcirc 3) = ?$

Yukarıdaki iki eşitlikte ⊚ ve ★ işaretlerinin görevleri verilmiştir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

In the equations above, the functions of ⊚ and ★ are given. What does the question mark stand for in the third equation ?

A) 7 B) 9 C) 11 D) 12 E) 15

9. I. $12 \boxdot 10 = 8$
II. $9 \boxdot 6 = 27$
III. $6 \boxdot 2 = 64$
IV. $8 \odot 4 = 16$
V. $6 \odot 3 = 9$

$\Rightarrow (5 \odot 2) \boxdot (3 \odot 1) = ?$

A) 125 B) 64 C) 27 D) 16 E) 4

10. I. $17 \lozenge 16 = 25$
II. $24 \lozenge 12 = 30$
III. $13 \lozenge 8 = 17$
IV. $18 \lozenge 6 = ?$

Yukarıdaki eşitliklerde ❖ işaretinin görevi aynıdır. Buna göre IV. eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the functions of ❖ remains unchanged. What does the question mark stand for in the fourth equation?

A) 18 B) 21 C) 23 D) 25 E) 28

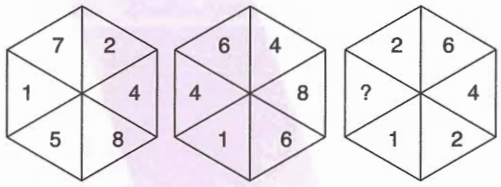
11. I. $8 \varpi 2 = 8$
II. $12 \varpi 4 = 14$
III. $18 \varpi 10 = 29$
IV. $14 \varpi 12 = ?$

Yukarıdaki eşitliklerde ❃ işaretinin görevi aynıdır. Buna göre IV. eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the functions of ❃ remains unchanged. What does the question mark stand for in the fourth equation?

A) 18 B) 21 C) 23 D) 26 E) 31

12.



A) 1 B) 2 C) 3 D) 9 E) 24

13.

+	a	b	c
a		11	
b			23
c	20		

$\Rightarrow c - (a + b) = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre $c - (a + b)$ kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of $c - (a + b)$?

A) 3 B) 4 C) 5 D) 6 E) 8

goo.gl/oouUoo Yös Lovers L

14.

+	a	b
c	8	9
d	14	15

x	a	b
c	12	14
d	48	56

$\Rightarrow \frac{(a+d)}{b} \cdot c = ?$

Yukarıdaki çarpma ve toplama tablolarında a, b, c ve d harfleri belli birer sayının yerine kullanılmıştır.

Buna göre $\frac{(a+d)}{b} \cdot c$ kaçtır?

In the multiplication and summation tables above, the letters a, b, c and d each stand for a specific number.

What is the value of $\frac{(a+d)}{b} \cdot c$ *?*

A) 1 B) 2 C) 3 D) 4 E) 8

15.

x	a	b	c
a		c	
b			16
c	8a		

$\Rightarrow a + c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a + c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a + c ?

A) 10 B) 12 C) 14 D) 16 E) 20

16.

+	a	b	c
a		15	
b		4a	16
c			

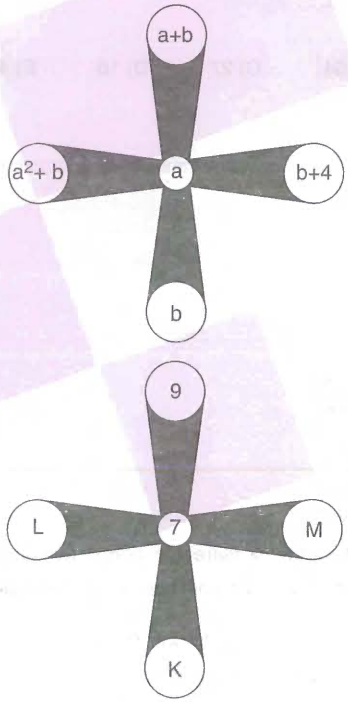
$\Rightarrow b + 2c = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre b + 2c kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of b + 2c ?

A) 16 B) 18 C) 20 D) 22 E) 24

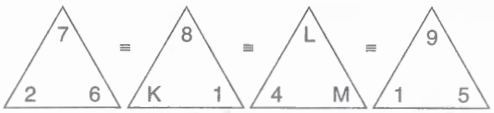
17.



$\Rightarrow K + L + M = ?$

A) 57 B) 59 C) 63 D) 65 E) 69

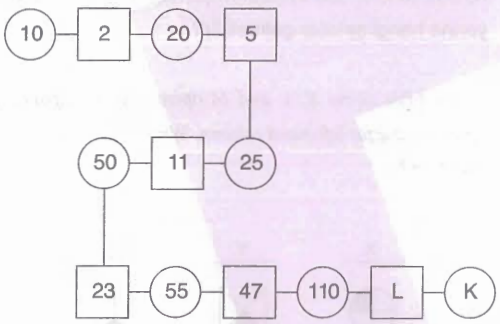
18.



⇒ K + L + M = ?

A) 15 B) 17 C) 20 D) 21 E) 24

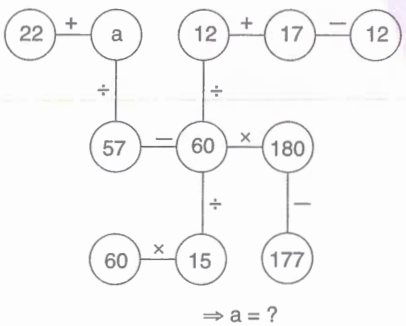
19.



⇒ K + L = ?

A) 175 B) 210 C) 245 D) 280 E) 305

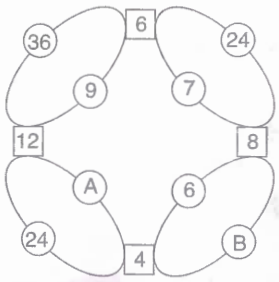
20.



⇒ a = ?

A) 16 B) 17 C) 18 D) 19 E) 20

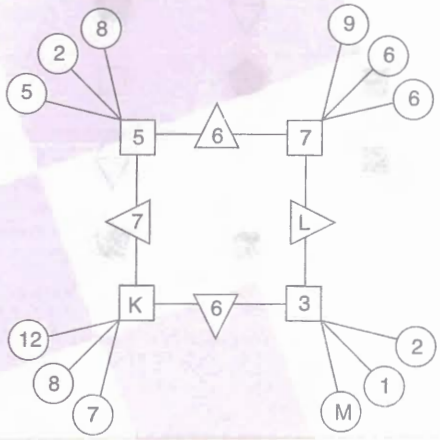
21.



⇒ B − A = ?

A) 6 B) 8 C) 10 D) 12 E) 16

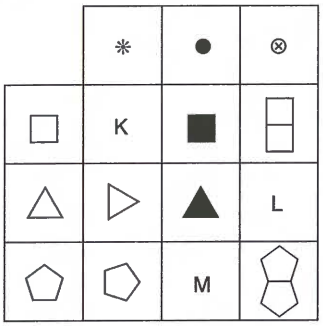
22.



⇒ K = ? L = ? M = ?

	K	L	M
A)	7	3	6
B)	8	4	3
C)	8	5	6
D)	9	4	3
E)	9	5	6

23.



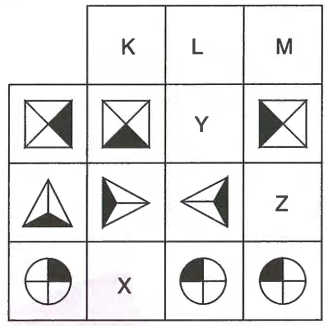
⇒ K = ? L = ? M = ?

Yukarıdaki tabloda en soldaki sütunlarda yer alan şekillere ✳, ● ve ⊗ işlemleri uygulanmıştır. Buna göre K, L ve M nin yerine hangi şekiller gelmelidir?

In the table above ✳, ● and ⊗ operations are applied to the figures in the far left-hand column. Which figures do K, L and M stand for ?

	K	L	M
A)	□	⬠	◇
B)	□	◇	⬟
C)	■	⬟	□
D)	■	□	◇
E)	□	■	⬟

24.



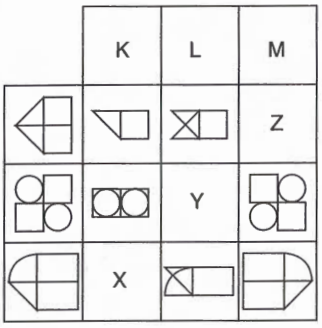
⇒ X = ? Y = ? Z = ?

Yukarıdaki tabloda en soldaki sütunlarda yer alan şekillere K, L ve M işlemleri uygulanmıştır. Buna göre X, Y ve Z nin yerine hangi şekiller gelmelidir?

In the table above K, L and M operations are applied to the figures in the far left-hand column. Which figures do X, Y and Z stand for ?

	X	Y	Z
A)	◓	⊠	◬
B)	⊕	⊠	◬
C)	⊕	⊠	◁
D)	⊕	⊠	◬
E)	⊕	⊠	▷

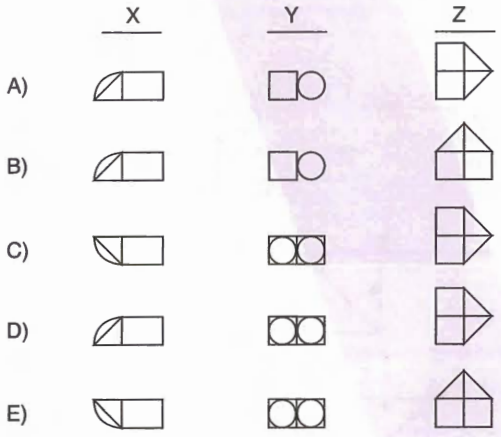
25.



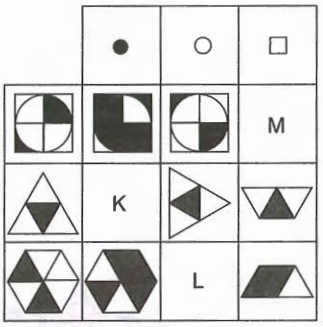
⇒ X = ? Y = ? Z = ?

Yukarıdaki tabloda en soldaki sütunlarda yer alan şekillere K, L ve M işlemleri uygulanmıştır. Buna göre X, Y ve Z nin yerine hangi şekiller gelmelidir?

In the table above K, L and M operations are applied to the figures in the far left-hand column. Which figures do X, Y and Z stand for?



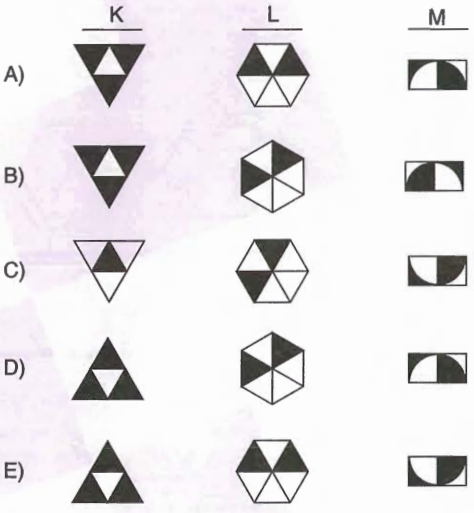
26.



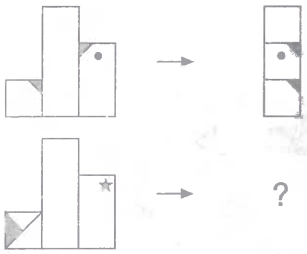
⇒ K = ? L = ? M = ?

Yukarıdaki tabloda en soldaki sütunlarda yer alan şekillere ●, ○ ve □ işlemleri uygulanmıştır. Buna göre K, L ve M nin yerine hangi şekiller gelmelidir?

In the table above ●, ○ and □ operations are applied to the figures in the far left-hand column. Which figures do K, L and M stand for ?

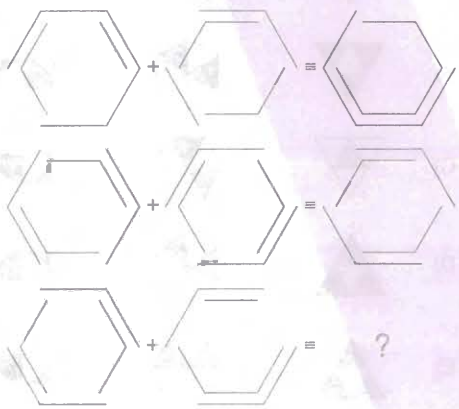


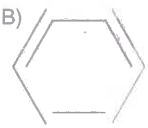
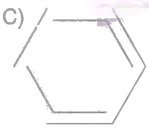
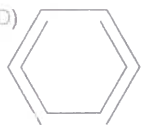
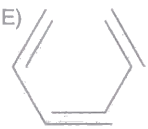
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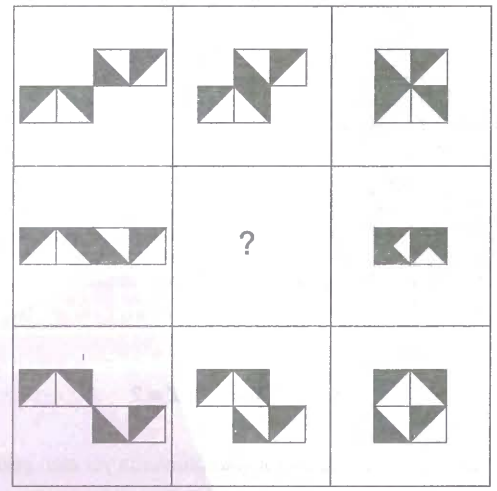
A) 
B) 
C) 
D) 
E) 

28.



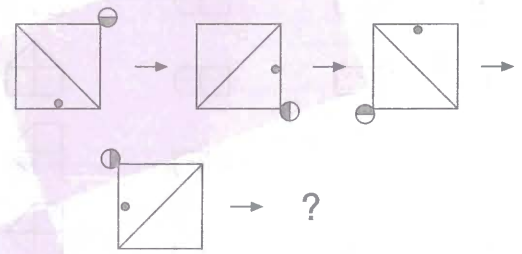
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B) 
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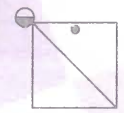
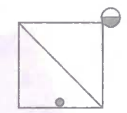
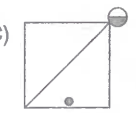
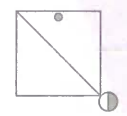
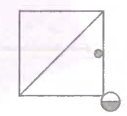
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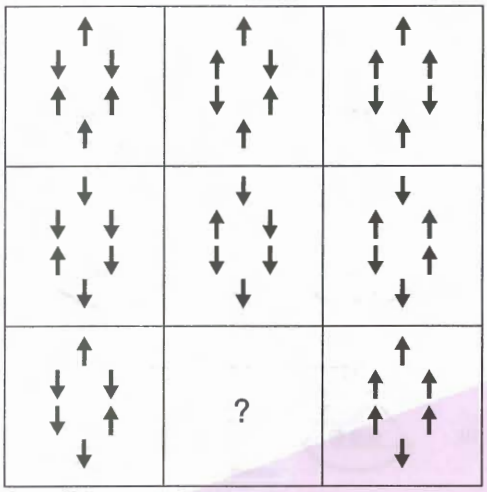
A) 
B) 
C) 
D) 
E) 

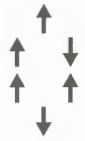
30.



A) 
B) 
C) 
D) 
E) 

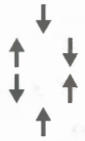
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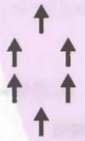


A) 

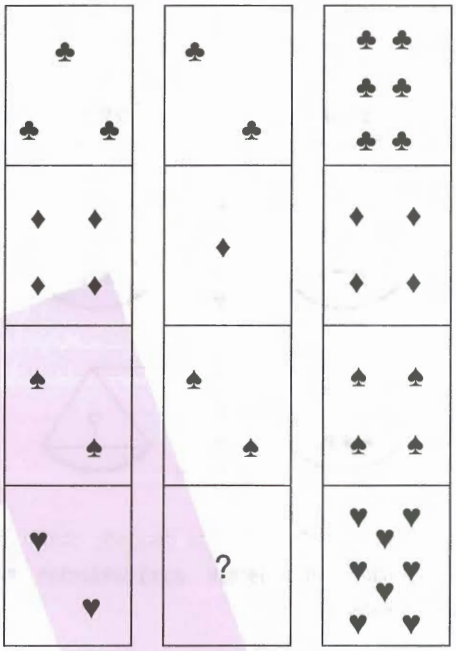
B) 

C) 

D) 

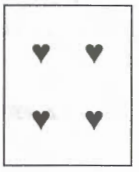
E) 

32.

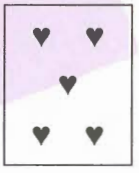


A) 

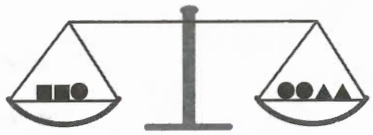
B) 

C) 

D) 

E) 

33.

I. 

II. 

III. 

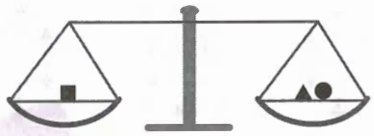
Yukarıdaki terazilerin üçü de dengede oldu€una göre, III. terazide soru işareti aşağıdakilerden hangisini göstermektedir?

All three scales above are in balance. Which of the following does the question mark stand for in the third scale ?

A) ▲●■ B) ■■ C) ■●●
D) ▲■■ E) ▲▲■

34.

I. 

II. 

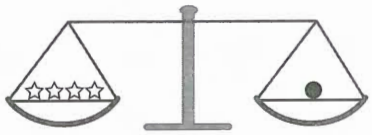
III. 

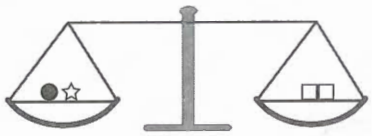
Yukarıdaki terazilerin üçü de dengede olduğuna göre, III. terazide soru işareti aşağıdakilerden hangisini göstermektedir?

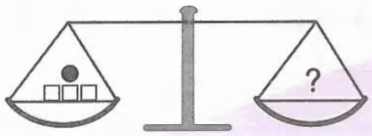
All three scales above are in balance. Which of the following does the question mark stand for in the third scale ?

A) ■●▲ B) ●●● C) ▲▲▲▲
D) ■■■■ E) ▲▲●

35.

I. 

II. 

III. 

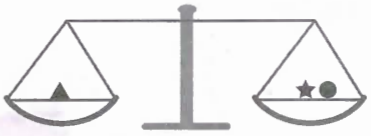
Yukarıdaki terazilerin üçü de dengede olduğuna göre, III. terazide soru işareti aşağıdakilerden hangisini göstermektedir?

All three scales above are in balance. Which of the following does the question mark stand for in the third scale ?

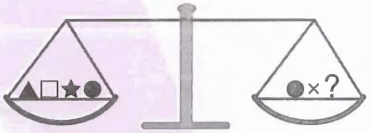
A) ●●☆☆☆ B) ●●☆□ C) ☆☆□□
D) ☆●□□ E) ●☆☆☆☆

36.

I. 

II. 

III. 

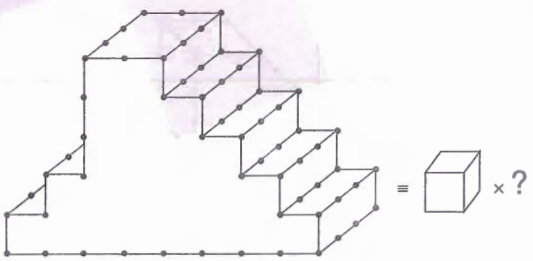
III. 

Soru işareti yerine hangi sayı gelmelidir?

Which of the following number stand for in the given question mark above?

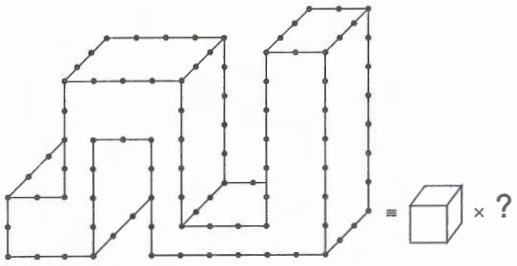
A) 8 B) 10 C) 12 D) 14 E) 16

37.



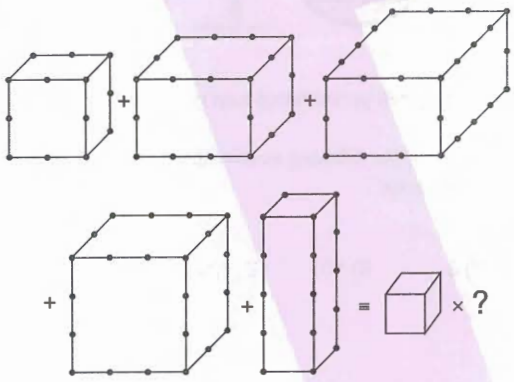
A) 66 B) 69 C) 72 D) 75 E) 78

38.



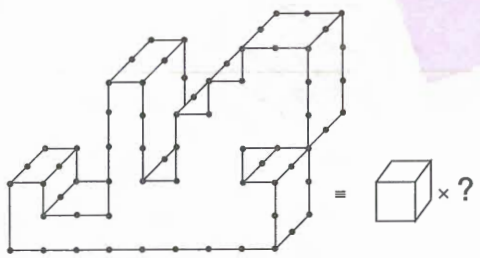
A) 96 B) 98 C) 101 D) 107 E) 111

39.



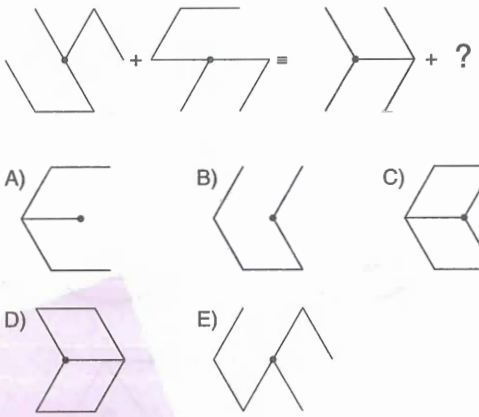
A) 60 B) 61 C) 62 D) 63 E) 64

40.

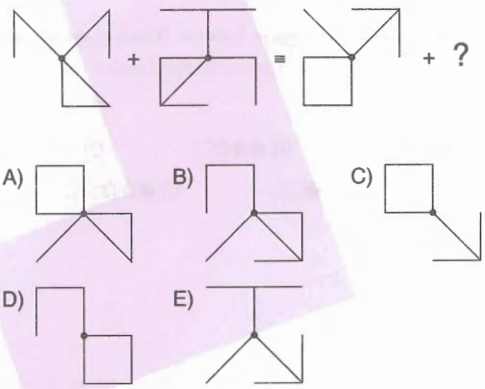


A) 56 B) 64 C) 72 D) 75 E) 78

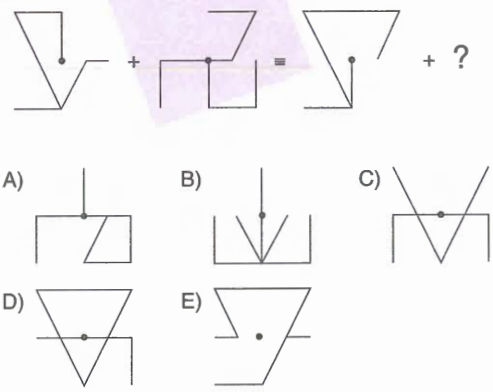
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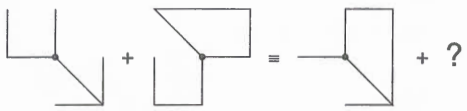
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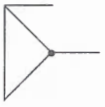


43.



44.



A) 
B) 
C) 
D) 
E) 

45.



Yukarıdaki şekil 270° ok yönünde döndürülürse aşağıdakilerden hangisi gibi görünür?

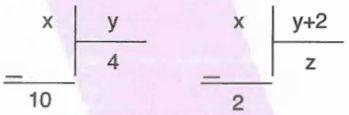
When the given figure rotates 270° in the clockwise direction which of the following figure formed ?

A) 
B) 
C) 
D) 
E) 

46. $(0{,}50)^2 - (0{,}25) + (0{,}25)^2 = ?$

A) 0,375 B) 0,25 C) 0,125 D) 0,625 E) 0,0625

47. $x, y \in N$



$\Rightarrow z = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

48. $x, y \in Z$

$-2 < x \leq 7$

$-3 < -y \leq 8$

$\Rightarrow \min(3y - x) = ?$

A) – 31 B) – 27 C) – 23 D) –17 E) –15

49. $\dfrac{2^{n+1}+2^n}{3\cdot 2^n}+\dfrac{3^n+3^{n-1}}{3^{n-2}}=?$

A) 12 B) 13 C) 18 D) 20 E) 24

50. $x>0$

$a=3^x$

$\Rightarrow \dfrac{9^{x+1}-9}{3^{x+1}-3}=?$

A) $3a+3$ B) $2a+3$ C) $3a-6$ D) $3a+2$ E) $3a+6$

51. $\int \dfrac{dx}{x^2+5}=?$

A) $\dfrac{1}{5}\arctan\left(\dfrac{x}{5}\right)+c$ B) $\dfrac{\sqrt{5}}{5}\arctan\left(\dfrac{x}{\sqrt{5}}\right)+c$

C) $\dfrac{1}{5}\arctan\left(\dfrac{x}{\sqrt{5}}\right)+c$ D) $\arctan\left(\dfrac{x}{5}\right)+c$

E) $\arctan\left(\dfrac{x}{\sqrt{5}}\right)+c$

52. $x<y<0$

$\sqrt{4x^2+4xy+y^2}+|y-x|+\dfrac{x}{\sqrt{x^2}}=11$

$\Rightarrow x=?$

A) -3 B) -4 C) -5 D) -6 E) -7

53. $a+b=1$

$a^3+b^3=\dfrac{5}{14}$

$\Rightarrow a\cdot b=?$

A) $\dfrac{1}{28}$ B) $\dfrac{3}{14}$ C) $\dfrac{1}{7}$ D) 1 E) 2

54. $\left(\dfrac{y}{1-\dfrac{y}{x}}+\dfrac{x}{1+\dfrac{x}{y}}\right):\dfrac{x\cdot y}{y^2-x^2}=?$

A) $x\cdot y$ B) $2x$ C) $2y$ D) $-2x$ E) $-2y$

55. $\frac{x-6}{x^2-5x+6} = \frac{A}{x-2} + \frac{B}{x-3}$

$\Rightarrow 5A - B = ?$

A) 23 B) 17 C) 10 D) –12 E) –19

56. $\frac{df(x)}{dx} = 6x^2 + 4x + 1$

$f(-1) = 5$

$\Rightarrow f(1) = ?$

A) 7 B) 8 C) 9 D) 10 E) 11

57. $x > 0 \quad y > 0 \quad z > 0$

$\frac{x}{5} = \frac{y}{4} = \frac{z}{7}$

$x^2 + y^2 + z^2 = 360$

$\Rightarrow x + y + z = ?$

A) 16 B) 20 C) 24 D) 32 E) 40

58. $\left.\begin{array}{l} \frac{x+y}{x \cdot y} = \frac{1}{2} \\ \frac{x+z}{x \cdot z} = \frac{1}{4} \\ \frac{y+z}{y \cdot z} = \frac{5}{12} \end{array}\right\} \Rightarrow \frac{z}{12} = ?$

A) 8 B) 4 C) 2 D) 1 E) –1

59. $\frac{6}{1 - \frac{2}{1 + \frac{3}{x}}} = 3 \quad \Rightarrow x = ?$

A) – 1 B) – 2 C) – 3 D) – 4 E) –8

60. $f(x^3 + 2) = x + 4$

$f^{-1}(5) = a$

$\Rightarrow a = ?$

A) 10 B) 9 C) 8 D) 6 E) 3

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61. $\cos x + \sin x = \sqrt{3} - 1$

$\Rightarrow \sin x \cdot \cos x = ?$

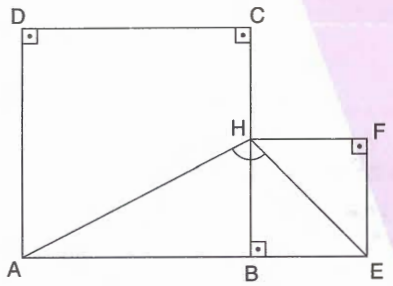
A) $2 - \sqrt{3}$ B) $2 + \sqrt{3}$ C) $3 - 2\sqrt{3}$

D) $\frac{3-2\sqrt{3}}{2}$ E) $\frac{3+2\sqrt{3}}{2}$

62. $\frac{\sin 4° \cdot \cos 4° \cdot \cos 8°}{\cos^2 37° - \sin^2 37°} = ?$

A) $-\frac{1}{4}$ B) $-\frac{1}{5}$ C) $\frac{1}{4}$ D) $\frac{1}{2}$ E) 1

63.



$|AB| = |BC| = |CD| = |AD|$

$|BH| = |BE| = |EF| = |FH|$

$|AB| = 2 \cdot |BE|$

$\Rightarrow \cos(\widehat{AHE}) = ?$

A) $\frac{\sqrt{10}}{10}$ B) $\frac{3\sqrt{10}}{10}$ C) $\frac{2\sqrt{5}}{5}$

D) $-\frac{\sqrt{10}}{10}$ E) $-\frac{3\sqrt{10}}{10}$

64. $f : R \to R$

$f(x) = f(-x)$

$\int_0^3 f(x)dx = 18 \quad \Rightarrow \int_{-4}^{3} f(x)dx - \int_{-4}^{-3} f(x)dx = ?$

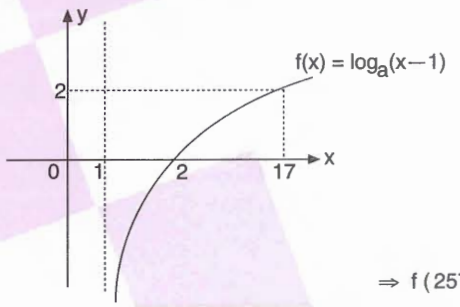
A) -18 B) 0 C) 9 D) 18 E) 36

65. $\left.\begin{matrix} \ln 2 = x \\ \ln 3 = y \end{matrix}\right\} \Rightarrow \ln 72 = ?$

A) $2x + 3y$ B) $4x + 2y$ C) $4y + 2x$

D) $2y + 3x$ E) $3x + 4y$

66.



$\Rightarrow f(257) = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

67. $f(x) = x^2 + |x-5|$
$\Rightarrow f'(4) + f'(6) = ?$

A) 5 B) 11 C) 15 D) 18 E) 20

68. $\frac{d^2}{dx^2}(e^{2x} \cdot \cos x) = ?$

A) $e^{2x} \cdot (3\cos x - 2\sin x)$
B) $e^{2x} \cdot \cos x$
C) $e^{2x} \cdot \sin x$
D) $e^{2x} \cdot (4\cos x - 3\sin x)$
E) $e^{2x} \cdot (3\cos x - 4\sin x)$

69. $f(x) = \ln(\cos^2(2x))$
$\Rightarrow f'(x) = ?$

A) $-\tan(2x)$ B) $-2\cdot\tan(2x)$
C) $-4\cdot\tan(2x)$ D) $-8\cdot\tan(2x)$
E) $-12\cdot\tan(2x)$

70. $\begin{vmatrix} 2008 & 2010 & 9876 \\ 2009 & 2011 & 6789 \\ 0 & 0 & 1 \end{vmatrix} = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

71. $F(x,y) = x^{\frac{2}{3}} + 2y^{\frac{2}{3}} - 3 = 0$
$\Rightarrow F'(1,1) = ?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) 1 D) $-\frac{1}{2}$ E) -1

72. $\left.\begin{matrix} y = t^2 - 2t - 4 \\ x = 3t - 6 \end{matrix}\right\} \Rightarrow \left.\frac{dy}{dx}\right|_{x=-3} = ?$

A) -3 B) -2 C) -1 D) 0 E) 1

73. $f(x) = \arctan(2^x)$

$\Rightarrow f'(1) = ?$

A) $\frac{\ln 2}{5}$ B) $\frac{\ln 2}{6}$ C) $-\frac{\ln 2}{3}$ D) $\frac{\ln 4}{5}$ E) $\frac{\ln 4}{3}$

74. $A = \begin{bmatrix} 4 & 7 \\ 3 & 5 \end{bmatrix}$ $\Rightarrow A^{-1} = ?$

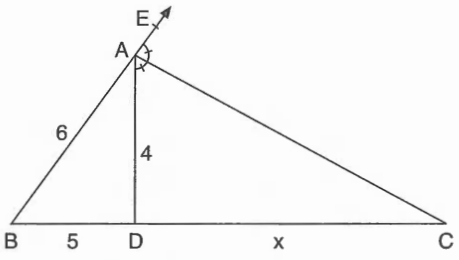
A) $\begin{bmatrix} 5 & -7 \\ -3 & 4 \end{bmatrix}$ B) $\begin{bmatrix} -4 & 3 \\ 7 & -5 \end{bmatrix}$ C) $\begin{bmatrix} -5 & 3 \\ 7 & -4 \end{bmatrix}$

D) $\begin{bmatrix} -5 & 7 \\ 3 & -4 \end{bmatrix}$ E) $\begin{bmatrix} 4 & -3 \\ -7 & 5 \end{bmatrix}$

75. $\lim_{x \to 0} \left(\frac{3x + \sin(3x)}{\tan(6x)} \right) = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 3

76.



$m(\widehat{EAC}) = m(\widehat{CAD})$

$|AB| = 6$ br

$|BD| = 5$ br

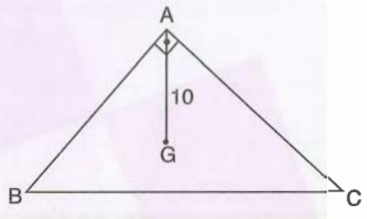
$|AD| = 4$ br

$|DC| = x$

$\Rightarrow x = ?$

A) 8 B) 10 C) 12 D) 14 E) 16

77.



G, ABC üçgeninin ağırlık merkezi

G, center of gravity of ABC triangle

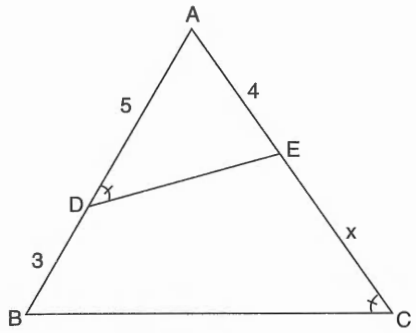
$|AG| = 10$ br

$[BA] \perp [CA]$

$\Rightarrow |BC| = ?$

A) 20 B) 25 C) 30 D) 35 E) 40

78.



$m(\widehat{ADE}) = m(\widehat{ACB})$

$|AD| = 5$ br

$|AE| = 4$ br

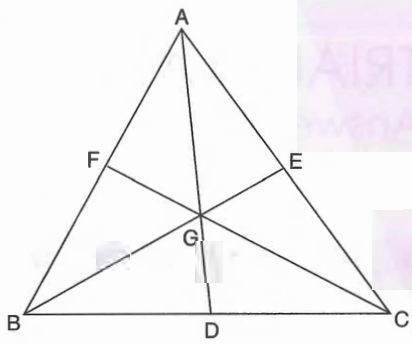
$|DB| = 3$ br

$|EC| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

79.



G, ABC üçgeninin ağırlık merkezi

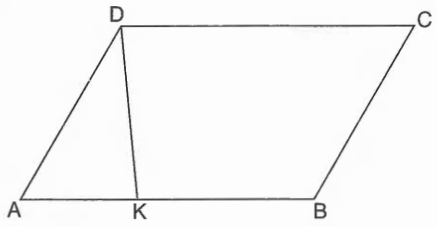
G, center of gravity of ABC triangle

$A(AGE) = 4$ br^2

$\Rightarrow A(ABC) = ?$

A) 20 B) 24 C) 28 D) 30 E) 40

80.



$[AB] // [DC]$

$[AD] // [BC]$

$3|AK| = 2|KB|$

$A(ADK) = 4$ br^2

$\Rightarrow A(ABCD) = ?$

A) 10 B) 12 C) 16 D) 18 E) 20

DENEME SINAVI 06 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	D	A	C	A	C	C	C	A	B	E	A	C	D	B	D	B	B	B	D

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
B	E	B	D	C	D	E	B	C	B	A	C	A	C	B	C	B	E	C	A

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	B	A	B	D	E	E	A	B	A	B	B	B	D	A	E	D	D	A	E

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
D	C	D	E	D	C	E	E	C	A	D	D	D	D	C	B	C	E	B	E

DENEME SINAVI 07
TRIAL EXAM 07

1. $\left.\begin{array}{l} ● - ▲ = 9 \\ ▲ + ■ = 25 \\ ● - ■ = 12 \end{array}\right\} \Rightarrow ▲ + ● + ■ = ?$

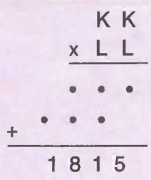
A) 37 B) 38 C) 42 D) 46 E) 48

2.



A) 1864 B) 1926 C) 2010 D) 2086 E) 2100

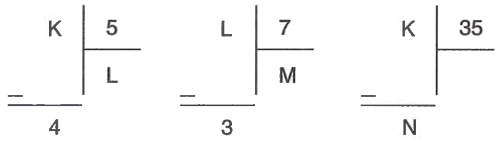
3.



$\Rightarrow K + L = ?$

A) 6 B) 8 C) 10 D) 12 E) 14

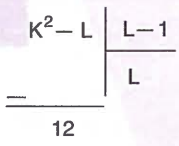
4.



$\Rightarrow N = ?$

A) 8 B) 11 C) 14 D) 17 E) 19

5.



$K - L = 2$

$\Rightarrow K + L = ?$

A) 3 B) 4 C) 6 D) 8 E) 9

6.

I	II
6 7 2 7 8 7	VURUCU KIRICI YARASA KARACA SIRALI
4 7 2 7 3 7	
0 1 2 1 3 1	
4 5 2 5 3 5	
8 5 2 7 9 5	

0 1 2 1 3 1 = ?

A) VURUCU B) KIRICI C) YARASA D) KARACA E) SIRALI

7.

I	II
8 2 0 2 9 6 2 5 2 6 5 4 8 4 9 3 4 3 4 6 1 2 3 4 9	HABER BEBEK NAZAR KAYAK YENER

8 2 0 2 9 = ?

A) HABER B) BEBEK C) NAZAR
D) KAYAK E) YENER

8.

I	II
K E N A R R A L L İ K İ R A Z İ K R A M K E Ş A N	16945 16249 54338 81540 18547

İ K R A M = ?

A) 16945 B) 16249 C) 54338
D) 81540 E) 18547

9.

I	II
E T K E N B A N K A K E T E N G E N E L K U R U L	47149 24943 14749 15653 80910

E T K E N = ?

A) 47149 B) 24943 C) 14749
D) 15653 E) 80910

10.

I	II
5 4 3 4 0 3 4 5 4 1 8 4 6 4 5 3 2 5 4 1 9 2 1 7 8	MİSAL BİLET MASAL SAMAN TARAS

8 4 6 4 5 = ?

A) MİSAL B) BİLET C) MASAL
D) SAMAN E) TARAS

11. I. $8 \otimes 2 = 2$
II. $13 \otimes 12 = 5$
III. $3 \otimes 12 = 3$
IV. $32 \otimes 23 = ?$

Yukarıdaki ilk üç eşitlik ⊗ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ⊗ is unchanged. What does the question mark stand for in the fourth equation?

A) 6 B) 7 C) 9 D) 11 E) 13

12. I. $4 * 3 = 7$
II. $8 * 5 = 39$
III. $7 * 2 = 45$
IV. $9 * 7 = ?$

Yukarıdaki ilk üç eşitlik * işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

*In the equations above, the function of * is unchanged. What does the question mark stand for in the fourth equation?*

A) 27 B) 29 C) 32 D) 35 E) 37

13. I. $(8 \bullet 4) \blacksquare 3 = 4$
II. $5 \blacktriangle (6 \bigstar 3) = 15$
III. $[[(15 \blacksquare 3) \bigstar (12 \blacksquare 6)] \blacktriangle 4] \bullet 2 = ?$

Yukarıdaki ilk iki eşitlik I, n, s ve H işaretlerinin görevlerini belirlemektedir. Buna göre üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ●, ■, ▲and ★ are unchanged. What does the question mark stand for in the third equation?

A) 10 B) 12 C) 14 D) 18 E) 24

14. I. $3 \bullet 7 = 16$
II. $2 \bullet 4 = 8$
III. $4 \bullet 5 = 21$
IV. $5 \bullet 7 = ?$

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 21 B) 24 C) 27 D) 32 E) 36

15. $2 \bullet 7 = 2$ $\quad 4 \blacksquare 5 = 14$

$6 \bullet 3 = 3$ $\quad 3 \blacksquare 7 = 17$

$5 \bullet 1 = 1$ $\quad 9 \blacksquare 3 = 15$

$(2 \blacksquare 9) \bullet (6 \blacksquare 4) = ?$

Yukarıdaki eşitliklerde ● ve ■ işaretlerinin görevlerini belirlemektedir. Buna göre soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● and ■ are unchanged. What does the question mark stand for in given equation above?

A) 10 B) 12 C) 14 D) 18 E) 20

16.

▲	6	8	12
4	K	6	8
10	8	L	11
14	10	M	13

K = ?

L = ?

M = ?

Yukarıdaki tablo ▲ işlemine göre düzenlenmiştir. Buna göre, K, L ve M'nin yerine hangi sayılar gelmelidir?

The table above is organized according to the ▲ operation. Which numbers to K, L and M stand for?

	K	L	M
A)	6	8	4
B)	5	7	10
C)	5	9	11
D)	6	9	10
E)	7	9	11

17.

x	a	b
a		40
c	24	

+	a	b
a		
c		16

$\frac{c}{b-a} = ?$

Yukarıdaki çarpma ve toplama tablolarında a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre $\frac{c}{b-a}$ kaçtır?

In the multiplication and summation tables above, the letters a, b ve c each stand for a specific number. What is the value of $\frac{c}{b-a} = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

18.

+	a	b	c
a			24
b	3.c		$\frac{13}{5}c$

b = ?

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre b kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of b?

A) 10 B) 16 C) 18 D) 20 E) 22

19. $\begin{bmatrix} 7 & 8 \\ 2 & 4 \end{bmatrix} = \begin{bmatrix} 6 & 3 \\ 9 & 3 \end{bmatrix} = \begin{bmatrix} 5 & 4 \\ 5 & 7 \end{bmatrix} = \begin{bmatrix} 3 & 1 \\ A & B \end{bmatrix} = \begin{bmatrix} 6 & 7 \\ 5 & C \end{bmatrix}$

A + B + C = ?

Şekildeki ilişkiye göre, A, B ve C nin toplamı kaçtır?

Given the relationship in the figure, what is the sum of A, B and C?

A) 14 B) 16 C) 18 D) 20 E) 22

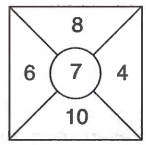
20.

I :	?	6	12	24	48
II :	1	?	6	16	38

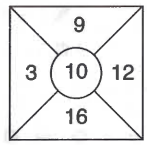
A) 3, 2 B) 2, 3 C) 3, 4 D) 4, 3 E) 3, 3

21.

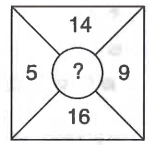
I.



II.



III.



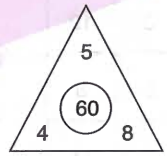
A) 8 B) 9 C) 11 D) 14 E) 16

22.

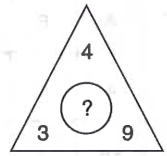
I.



II.

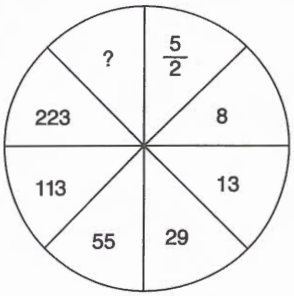


III.



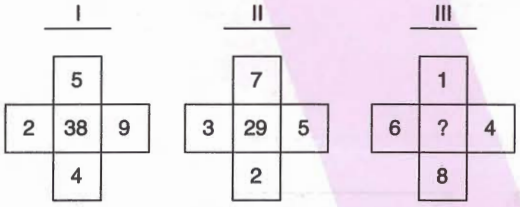
A) 36 B) 48 C) 54 D) 67 E) 108

23.



A) 358 B) 443 C) 449 D) 482 E) 512

24.

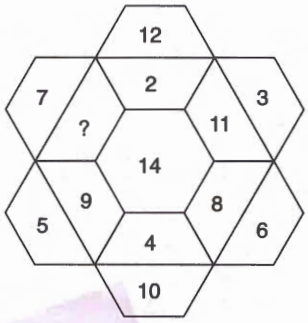


I. ve II. şekilde belirlenen kurala göre III. şekildeki soru işaretinin yerine hangi sayı gelmelidir?

Given the relationship established in I and II, which number does question mark stand for in III?

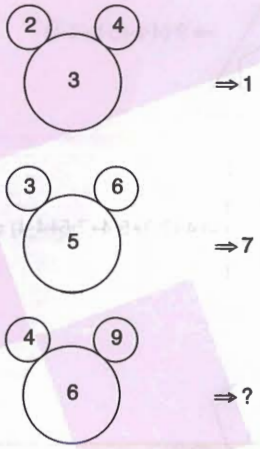
A) 20 B) 25 C) 28 D) 32 E) 36

25.



A) 5 B) 6 C) 7 D) 8 E) 9

26.



I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

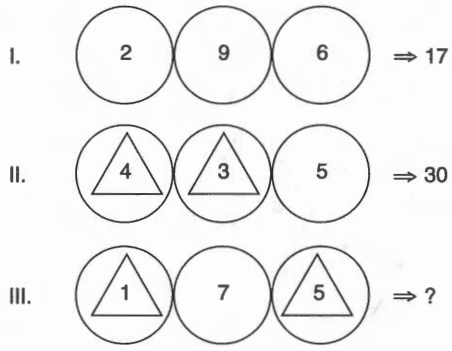
Which of the numbers below completes III. in accordance with the relationship established in I and II?

A) 0 B) 3 C) 5 D) 8 E) 11

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27.

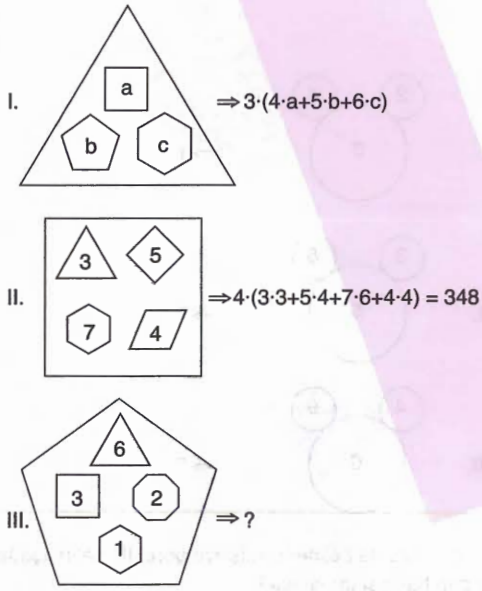


I. ve II. satırlarda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III, in accordance with the relationship established in I and II?

A) 24 B) 27 C) 29 D) 30 E) 33

28.

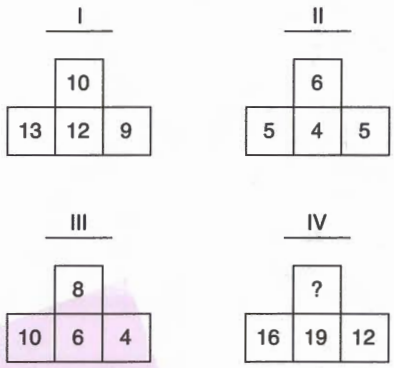


I. ve II. satırlarda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III, in accordance with the relationship established in I and II?

A) 224 B) 232 C) 254 D) 260 E) 296

29.

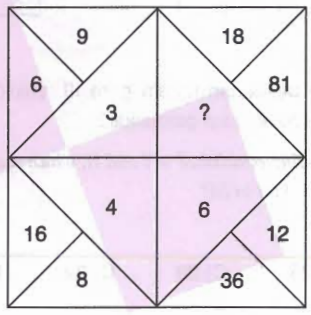


I, II ve III. şekilde belirlenen kurala göre IV. şekildeki soru işaretinin yerine hangi sayı gelmelidir?

Given the relationship established in I, II and III, which number does question mark stand for in IV?

A) 5 B) 7 C) 9 D) 11 E) 13

30.



A) 5 B) 9 C) 7 D) 8 E) 2

31.

I. 

II. 

III. 

I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ●▲ B) ●● C) ▲▲ D) ●▲▲ E) ●●▲

32.

2	1	6	3	10	8	14	?
1	4	2	8	5	12	13	16

Tabloda verilen ilişkiye göre, soru işaretinin yerine hangi sayı gelmelidir?

Given the relationship established in table, which number does question mark stand for in table?

A) 15 B) 17 C) 19 D) 21 E) 24

33.

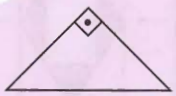
8	7	11	9	14	11	17	13	20	15	A	B

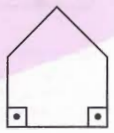
⇒ A + B = ?

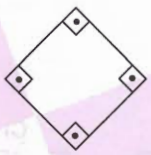
A) 34 B) 36 C) 38 D) 40 E) 42

34.

I.  ⇒ 4

II.  ⇒ 2

III.  ⇒ 3

IV.  ⇒ 0

V.  ⇒ ?

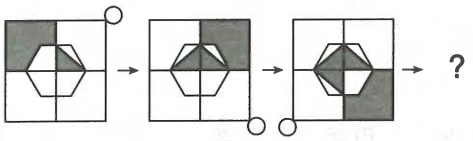
I, II, III ve IV. satırda belirlenen ilişkiye göre V. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes V in accordance with the relationship established in I, II, III and IV.?

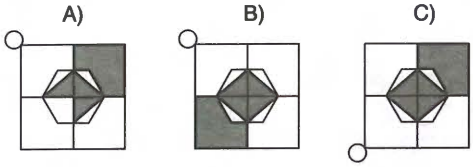
A) 0 B) 1 C) 2 D) 3 E) 4

35.

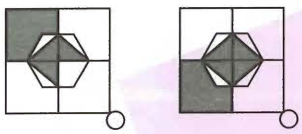
I. II. III. IV.



A) B) C)

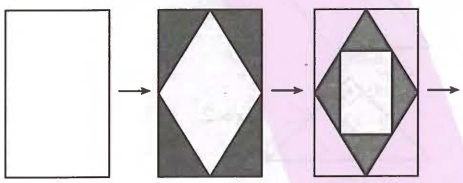


D) E)

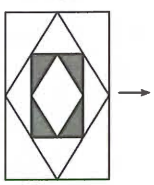


36.

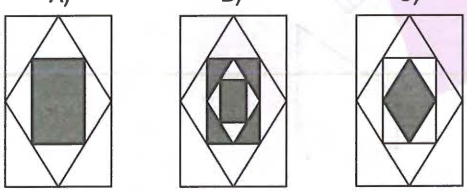
I. II. III.



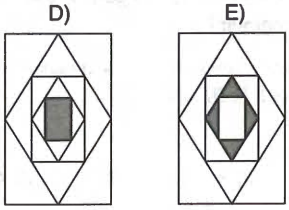
IV. V.



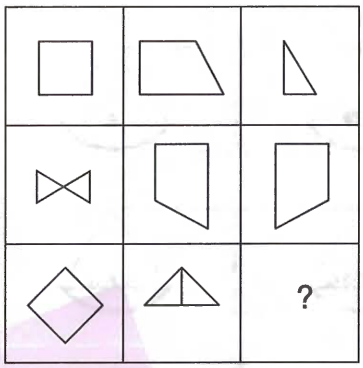
A) B) C)



D) E)



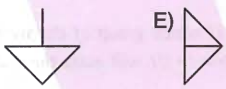
37.



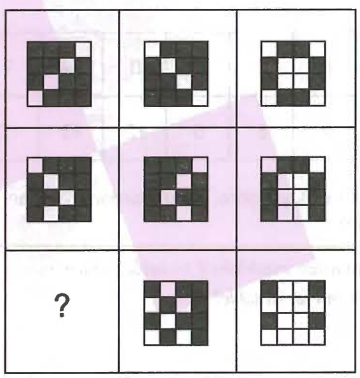
A) B) C)



D) E)



38.



A) B) C)



D) E)



39. Aşağıdakilerden hangisi farklıdır?

Which of the followings different?

A) 

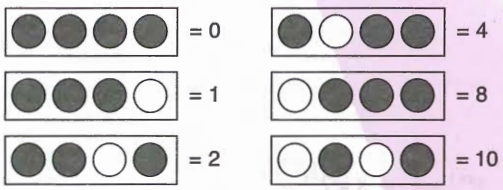
B) 

C) 

D) 

E) 

40.



A) 

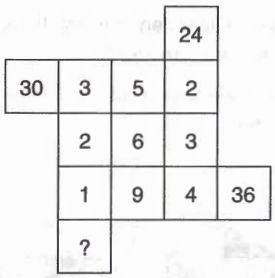
B) 

C) 

D) 

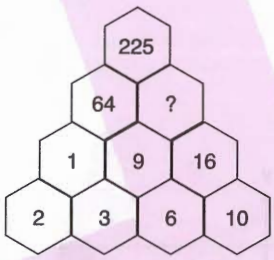
E) 

41.



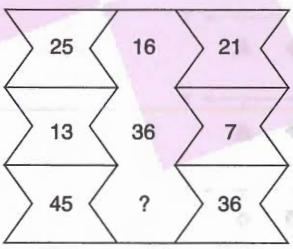
A) 6 B) 12 C) 15 D) 18 E) 27

42.



A) 16 B) 36 C) 49 D) 50 E) 60

43.



A) 81 B) 64 C) 49 D) 121 E) 25

44. 

Aşağıdaki küplerden hangisi bu küpün başka bir görünümüdür?

Which of the following cubes is another view of this cube?

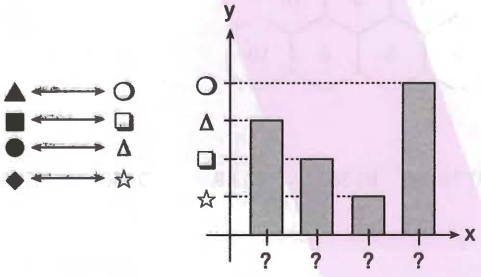
A) 

B) 

C) 

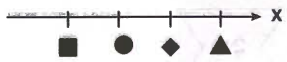
D) 

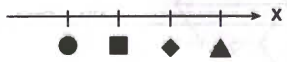
E) 

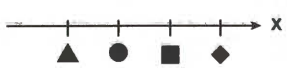
45. 

Yukarıdaki bilgilere göre ▲, ■, ● ve ◆ sütun grafiğin yatay ekseni üzerinde nasıl sıralanır?

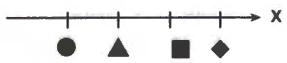
Given the information above, what is the order of ▲, ■, ● and ◆ on the horizontal axis of the bar graph?

A) 

B) 

C) 

D) 

E) 

46. $x^2 - 6x + m = 0$

S.S. = $\{x_1, x_2\}$

$x_1 - 4x_2 = 16 \Rightarrow m = ?$

A) –24 B) –16 C) –8 D) 8 E) 16

47. $[\tan\alpha \cdot \cos\alpha]^2 + [\sin\alpha \cdot \cot\alpha]^2 = ?$

A) $\sin\alpha$ B) $\cos\alpha$ C) $\cos^2\alpha$

D) $\sin^2\alpha$ E) 1

48. $4^{x+1} = 8 \Rightarrow x = ?$

A) $\frac{1}{2}$ B) 1 C) $\frac{3}{2}$ D) 2 E) 3

49. $\lim_{x \to 2} (x^3 - 2x^2 + 3x - 4) = ?$

A) 6 B) 5 C) 4 D) 3 E) 2

50. $f(x) = \log_3(2x) \Rightarrow f'(x) = ?$

A) $\frac{1}{2x}$ B) $\frac{1}{x}$ C) $\frac{1}{x \cdot \ln 3}$ D) $\frac{1}{x \cdot \ln x}$ E) $\frac{\ln 3}{x}$

51. $f(x) = 6x^2 + 7x \Rightarrow \lim_{x \to 1} \frac{f(x) - f(1)}{x - 1} = ?$

A) 6 B) 12x+7 C) 12x D) 13 E) 19

52. $\int (5^x)dx = ?$

A) $5^x \cdot \ln 5 + c$ B) $\frac{5^x}{\ln 5} + c$ C) $\frac{5^{x+1}}{x+1} + c$ D) 6x+c E) 5x+c

53. $\int \frac{\ln x}{x} dx = ?$

A) $\frac{(\ln x)^2}{2} + c$ B) $\ln x + c$ C) $x^3 + x^2 + c$ D) $\frac{x}{3} + \frac{x^2}{2} + c$ E) $2x + c$

54. $\int (4x + 1)dx = ?$

A) $3x + c$ B) $2x^2 + c$ C) $2x^2 + x + c$ D) $x^2 + x + c$ E) $2x + c$

55. $\begin{bmatrix}1 & 2\\ 3 & -1\end{bmatrix}\cdot\begin{bmatrix}2 & 0\\ 1 & 3\end{bmatrix}=\begin{bmatrix}4 & a\\ b & -3\end{bmatrix} \Rightarrow a+b=?$

A) 9 B) 10 C) 11 D) 12 E) 13

56. $\sqrt{\frac{25}{16}+\frac{4}{9}-\frac{5}{3}}=?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) $\frac{7}{12}$ D) 1 E) $\frac{23}{12}$

57. $\frac{\sqrt[7]{-128}-\sqrt[4]{(-1)^4}}{\sqrt[3]{-27}+4}=?$

A) -3 B) -1 C) $-\frac{1}{7}$ D) $\frac{3}{7}$ E) 3

58. $2^x \cdot 5^{-y} = 12$

$5^x \cdot 2^{-y} = 75$

$\Rightarrow x+y=?$

A) -2 B) -1 C) 0 D) 1 E) 2

59. $5^x = 3 \Rightarrow 3^{\frac{1}{x}} + 25^x = ?$

A) 28 B) 15 C) 14 D) 12 E) 8

60. $3^{x+2} + 3^{x+1} + 3^x = 351 \Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 6

61. $x^4 - 4x^3 + 5 = 0$

$\Rightarrow \dfrac{2x^4 + 10}{x^3} = ?$

A) 2 B) 4 C) 8 D) 12 E) 16

62. $\sqrt{5+\sqrt{24}} + \sqrt{5-\sqrt{24}} = ?$

A) 1 B) $\sqrt{3}$ C) 3 D) $2\sqrt{3}$ E) 4

63. $x + x^{-1} = 5$

$\Rightarrow x^2 + x^{-2} = ?$

A) 19 B) 21 C) 23 D) 25 E) 27

64. $x^3 - y^3 - 3x^2y + 3xy^2 + 64 = 0$

$\Rightarrow x - y = ?$

A) -4 B) -2 C) 1 D) 2 E) 4

65. $a, b \in Z$

$6a + 15 = a \cdot b \Rightarrow \max(a \cdot b) = ?$

A) 108 B) 105 C) 75 D) 45 E) 24

66. $K = \left(1+\dfrac{1}{3}\right)\cdot\left(1+\dfrac{1}{5}\right)\cdot\left(1+\dfrac{1}{7}\right)$

$L = \left(1+\dfrac{1}{2}\right)\cdot\left(1+\dfrac{1}{4}\right)\cdot\left(1+\dfrac{1}{6}\right)$

$\Rightarrow K \cdot L = ?$

A) 4 B) 8 C) 16 D) 24 E) 32

67. $x, y, z < 0$

$$\frac{0,1}{2x} = \frac{0,2}{3y} = \frac{0,3}{4z}$$

$\Rightarrow$ x, y, z ? > ? > ?

A) $x > y > z$ B) $y > z > x$ C) $z > y > x$
D) $z > x > y$ E) $x > z > y$

68. $\dfrac{3^{-2} + 0,2\overline{5}}{3^{-1} + 0,\overline{6}} : \dfrac{0,33}{1} = ?$

A) $\frac{10}{9}$ B) $\frac{10}{3}$ C) $\frac{10}{6}$ D) $\frac{1}{9}$ E) $\frac{1}{6}$

69. $\dfrac{\left(\frac{0,2}{1,4} - 1\right) : \frac{0,06}{0,14}}{\frac{0,3}{3} + 0,9} = ?$

A) -2 B) -4 C) -6 D) -7 E) -8

70. $\dfrac{a}{2} = \dfrac{b}{c} = \dfrac{c}{3} \Rightarrow \dfrac{(a+c)\cdot c}{b} = ?$

A) $\frac{3}{4}$ B) $\frac{5}{3}$ C) 4 D) 5 E) 6

71. $\left.\begin{array}{l} a = 2b \\ c = 3a \\ a + b + c = 45 \end{array}\right\} \Rightarrow c - a = ?$

A) 20 B) 14 C) 12 D) 10 E) 8

72. $\dfrac{2+4+6+\ldots+2n}{1+3+5+\ldots+(2n+1)} = \dfrac{35}{36} \Rightarrow n = ?$

A) 35 B) 36 C) 63 D) 68 E) 72

73. $\frac{(n+1)!}{(n-1)!} : \frac{(n+2)!}{n!} = ?$

A) $\frac{n}{n+1}$ B) $\frac{n-1}{n}$ C) $\frac{n+2}{n}$

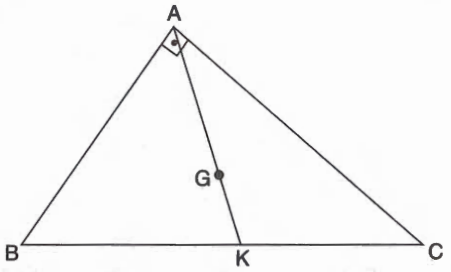
D) $\frac{n}{n+2}$ E) $\frac{n}{n-1}$

74. $\frac{x,\bar{z}+y,\bar{x}+z,\bar{y}}{x,y+y,z+z,x} = ?$

A) $\frac{9}{11}$ B) $\frac{11}{9}$ C) $\frac{99}{100}$

D) $\frac{100}{99}$ E) $\frac{99}{11}$

75.



G ağırlık merkezidir. *(G center of gravity).*

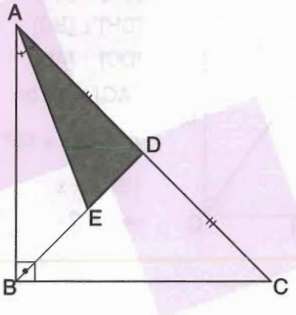
[AB] ⊥ [AC]

|GK| = 10 br

⇒ |BC| = ?

A) 20 B) 30 C) 40 D) 60 E) 90

76.



[AE] açıortay *(bisector)*

[AB] ⊥ [BC]

|AD| = |DC|

|BD| = 10 br

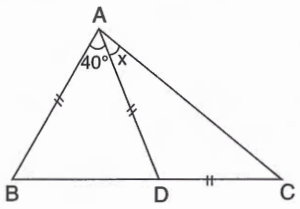
|AB| = 12 br

⇒ $A(\widehat{ADE}) = ?$

A) 20 B) $\frac{240}{11}$ C) $\frac{250}{11}$

D) $\frac{270}{11}$ E) 75

77.



$m(\widehat{BAD}) = 40°$

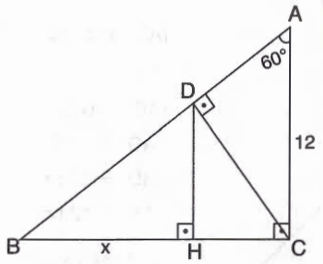
$|AB| = |AD| = |DC|$

$m(\widehat{CAD}) = x$

$\Rightarrow x = ?$

A) 5° B) 15° C) 25° D) 35° E) 45°

78.



$[AC] \perp [BC]$

$[DH] \perp [BC]$

$[DC] \perp [AB]$

$|AC| = 12$ br

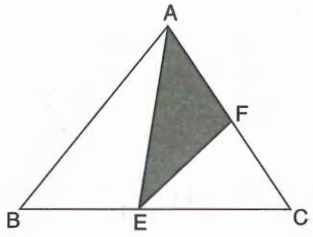
$m(\widehat{BAC}) = 60°$

$|BH| = x$

$\Rightarrow x = ?$

A) $2\sqrt{3}$ B) $3\sqrt{3}$ C) $6\sqrt{3}$ D) 6 E) $9\sqrt{3}$

79.



$|AF| = \frac{2}{3}|CF|$

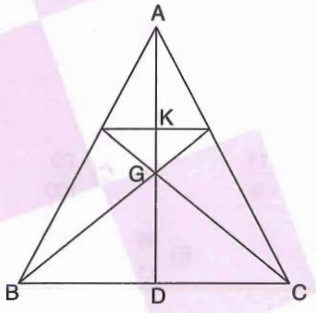
$|EC| = \frac{1}{4}|BE|$

$A(ABC) = 50$ br^2

$\Rightarrow A(AEF) = ?$

A) 2 B) 4 C) 8 D) 16 E) 32

80.

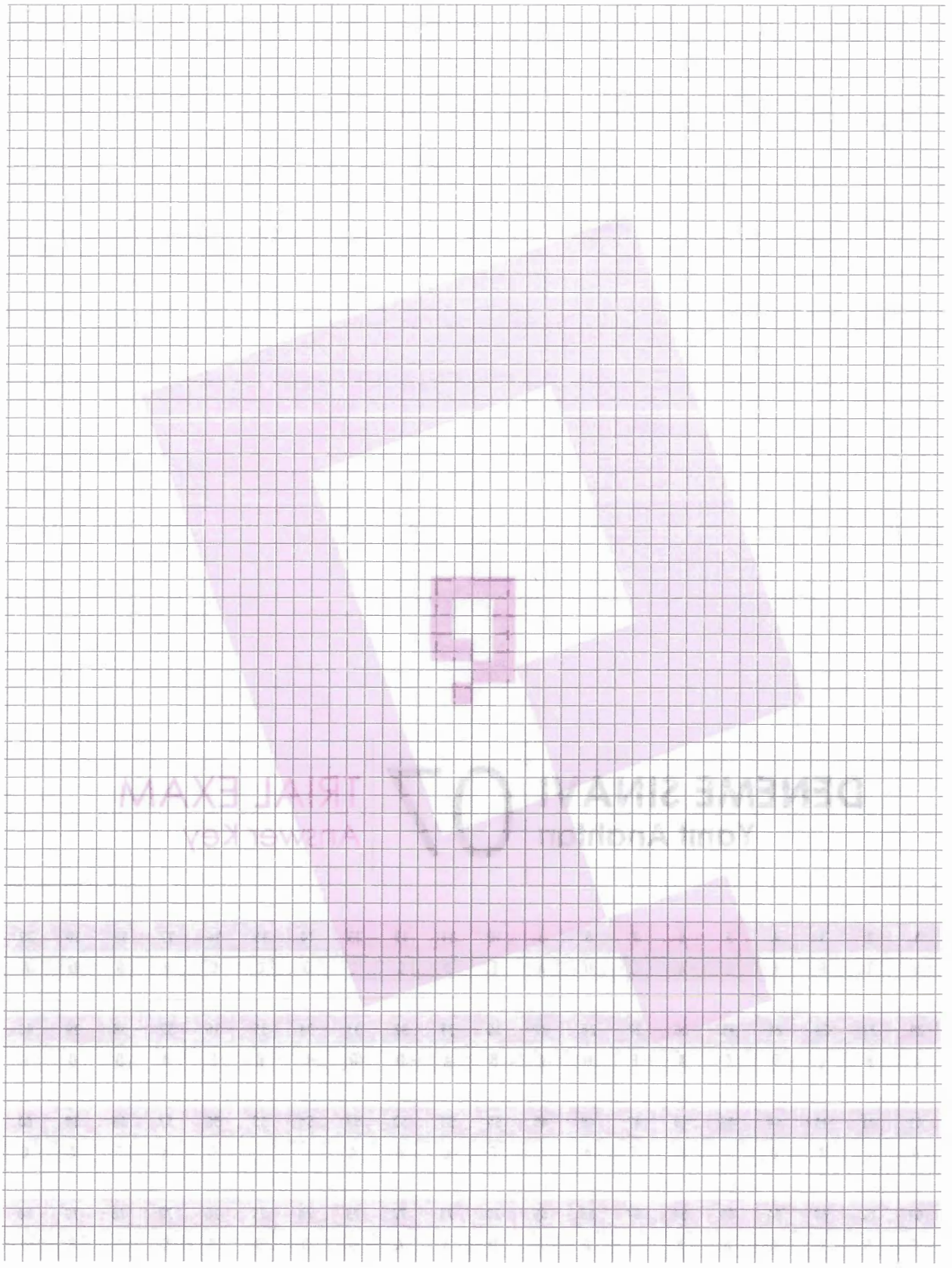


G, ABC üçgeninin ağırlık merkezi

G, center of gravity of ABC triangle

$\Rightarrow \frac{|AD|+|AK|}{|KG|+|KD|} = ?$

A) $\frac{2}{3}$ B) $\frac{5}{3}$ C) $\frac{10}{3}$ D) $\frac{9}{4}$ E) $\frac{5}{2}$



DENEME SINAVI 07 TRIAL EXAM

Yanıt Anahtarı | Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
E	E	B	E	C	A	C	D	A	E	D	C	C	D	C	C	A	B	D	A

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
C	B	C	D	C	A	E	D	C	B	A	D	D	C	B	E	D	D	D	E

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
A	C	A	D	B	B	E	A	E	C	E	B	A	C	C	C	A	E	C	C

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C	D	C	A	B	A	A	A	A	D	A	A	D	D	D	B	D	E	B	D

DENEME SINAVI 08
TRIAL EXAM 08

1.
$$\begin{array}{r} 5AA \\ +\ 7A7 \\ \hline 1BBB \end{array} \Rightarrow B = ?$$

A) 2 B) 3 C) 4 D) 6 E) 8

2.
$$\begin{array}{r} 9B9A \\ -\ D6B9 \\ \hline AAA2 \end{array} \Rightarrow B = ?$$

A) 1 B) 3 C) 4 D) 7 E) 8

3.
$$\begin{array}{r} BA9 \\ \times\ \ BA \\ \hline A.8 \\ +\ BA9 \\ \hline BC.8 \end{array} \Rightarrow B + C = ?$$

A) 3 B) 4 C) 5 D) 6 E) 7

4.
$$\begin{array}{r|l} ABC1 & EE \\ -\ AA & EEE \\ \hline 0AC & \\ -\ AA & \\ \hline 0D1 & \\ -\ AA & \\ \hline 07 & \end{array} \Rightarrow A + B + C = ?$$

A) 18 B) 20 C) 21 D) 22 E) 24

5.
$$\begin{array}{r} AAB \\ +\ \ B \\ \hline ABA \end{array} \Rightarrow A + B = ?$$

A) 9 B) 11 C) 13 D) 15 E) 17

6.
SELEN
SAKAR
NADİR
DEMİR
MELEK
$\Rightarrow$ DEMİR = ?

A) 94748 B) 54628 C) 63028 D) 03137 E) 93135

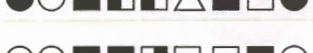
7.
1 2 3 4 5 2
2 1 2 5 8 2
5 2 1 5 0 3
2 3 6 2 7 2
1 2 7 9 4 3
⇒ 127943 = ?

A) MANİSA B) MARDİN C) SAMSUN D) ANKARA E) AMASYA

8.
P E N A
S E M A
L A L E
S E L E
A T E Ş
⇒ LALE = ?

A)  B) 
C)  D) 
E) 

9. TOPHANELİ = ?

A) 
B) 
C) 
D) 
E) 

10. KARA: 
ELMAS: 

MERAKLANMAK = ?

A) 
B) 
C) 
D) 
E) 

11. I. 5 ● 7 → 35
II. 13 ● 3 → 12
III. 25 ● 33 → 42
IV. 11 ● 30 → ?

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 6 B) 14 C) 22 D) 33 E) 60

goo.gl/oouUoo Yös Lovers L

12. I. 3 ■ 8 → 11
II. 14 ■ 19 → 11
III. 89 ■ 18 → 8
IV. 37 ■ 56 → ?

Yukarıdaki ilk üç eşitlik ■ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ■ *is unchanged. What does the question mark stand for in the fourth equation?*

A) 5 B) 9 C) 15 D) 19 E) 21

13. I. 23 △ 32 → 55
II. 41 △ 26 → 58
III. 17 △ 53 → 88
IV. 94 △ 35 → ?

Yukarıdaki ilk üç eşitlik △ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of △ is unchanged. What does the question mark stand for in the fourth equation?

A) 18 B) 63 C) 108 D) 129 E) 138

14. I. 8 ❑ 6 → 64, 4, 36
II. 9 ❑ 5 → 81, 16, 25
III. 7 ❑ 3 → 49, 16, 9
IV. 6 ❑ 3 → ?

Yukarıdaki ilk üç eşitlik ❑ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ❑ is unchanged. What does the question mark stand for in the fourth equation?

A) 36, 18, 9 B) 36, 9, 18 C) 36, 9, 3
D) 36, 18, 3 E) 36, 9, 9

15. $\partial+2-3=-7$
$\varepsilon-\partial+\Sigma=-1$

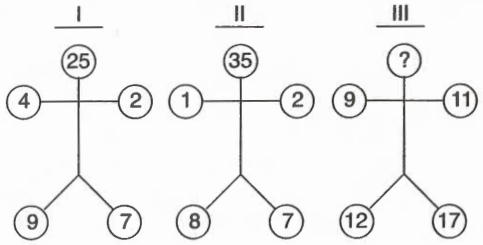
$$\frac{-3\cdot(-\partial+4)}{-2\cdot(3-\Sigma)}=?$$

A) 3 B) 6 C) 10 D) 15 E) 30

16. I : 20 32 ? 52 60
II : 10 ? 20 26 30

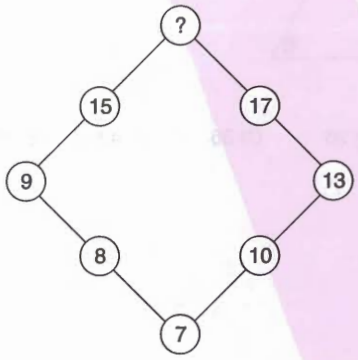
A) 38, 12 B) 42, 14 C) 40, 12
D) 48, 14 E) 40, 16

17.



A) 18 B) 49 C) 55 D) 132 E) 153

18.



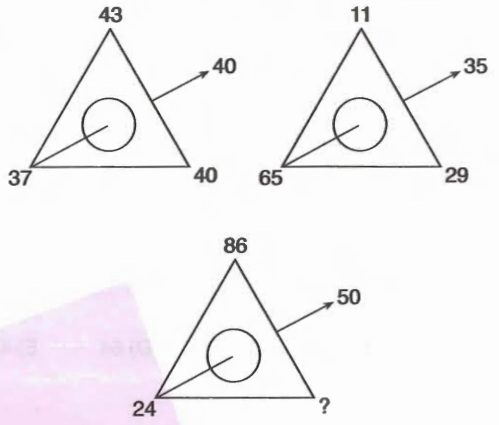
A) 11 B) 21 C) 24 D) 32 E) 34

19.

1	3	5	6	8	7	
6	16	28	36	?	50	32
2	2	4	3	1	9	

A) 14 B) 18 C) 24 D) 36 E) 44

20.



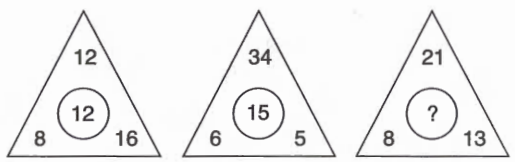
A) 7 B) 14 C) 16 D) 26 E) 40

21.



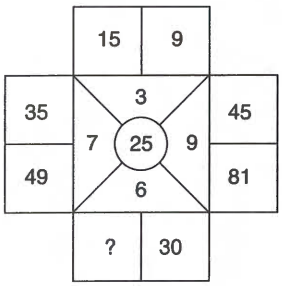
A) 22 B) 36 C) 50 D) 53 E) 68

22.



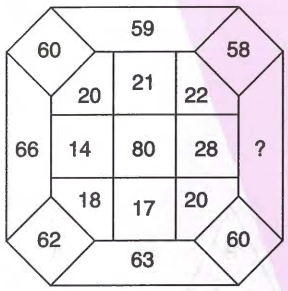
A) 9 B) 11 C) 13 D) 14 E) 17

23.



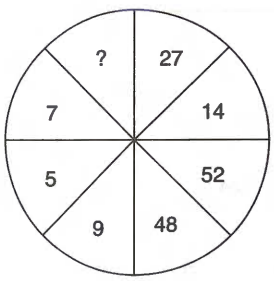
A) 36 B) 24 C) 18 D) 64 E) 40

24.



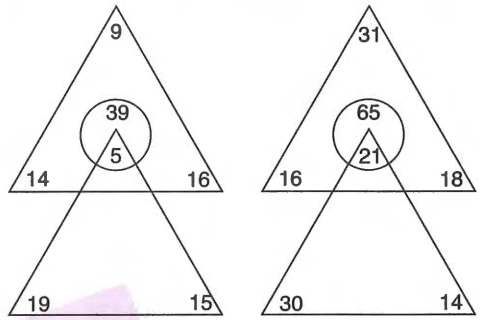
A) 42 B) 45 C) 62 D) 56 E) 52

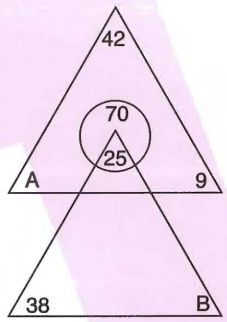
25.



A) 1 B) 2 C) 4 D) 8 E) 12

26.





A + B = ?

A) 19 B) 26 C) 36 D) 42 E) 64

27.

+	a	b	c
a			16
b	5 · c		a

⇒ b = ?

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre b kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of b?

A) 2 B) 4 C) 8 D) 12 E) 16

28.

+	a	b	c
a		20	32
b		16	

$\Rightarrow c - a - b = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c – a – b kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of c – a – b?

A) 0 B) 2 C) 4 D) 5 E) 7

29.

+	a	b	c
a	c	3 . c	
b			28

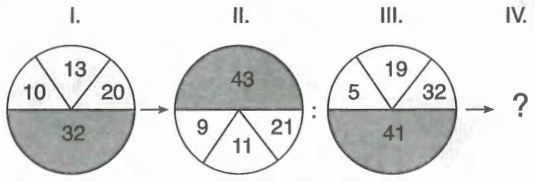
$\Rightarrow a = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a kaçtır?

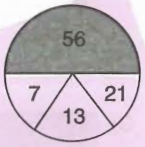
In the summation table above, the letters a, b and c each stand for a specific number. What is the value of a?

A) 4 B) 6 C) 8 D) 14 E) 20

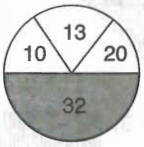
30.



A)



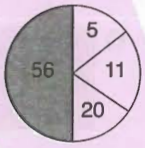
B)



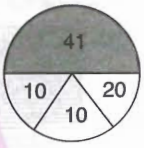
C)



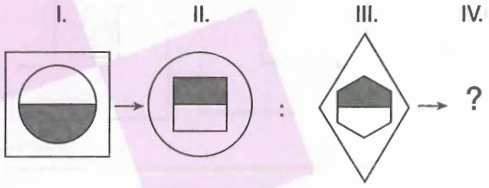
D)



E)



31.



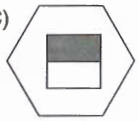
A)



B)



C)



D)

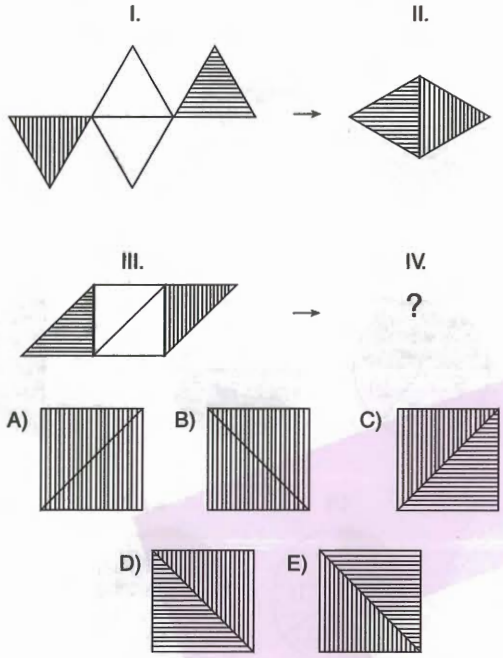


E)

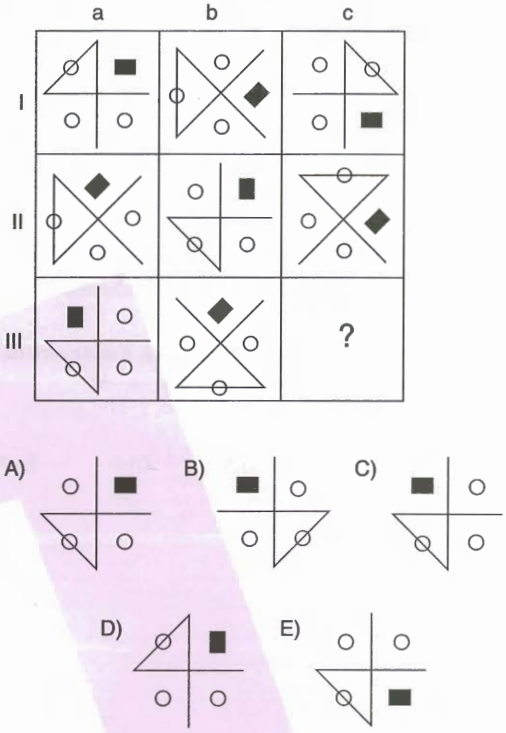


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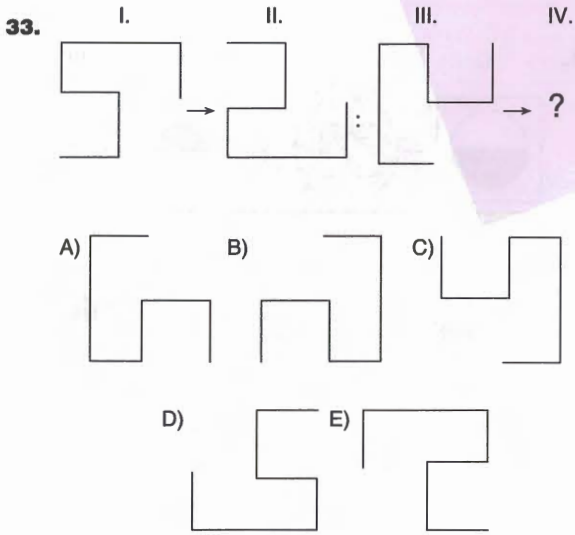
32.



34.



33.

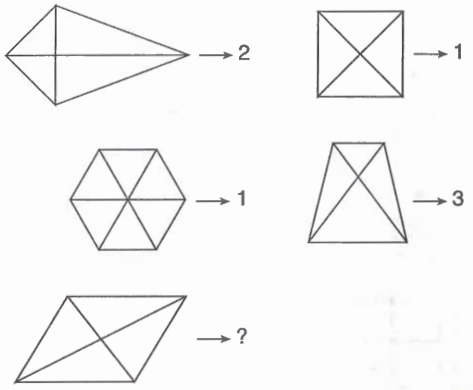


35.

○	18	15	24	35	60
I	9	–	12	–	30
II	6	?	8	–	20
III	–	–	?	–	15
IV	–	3	–	?	12

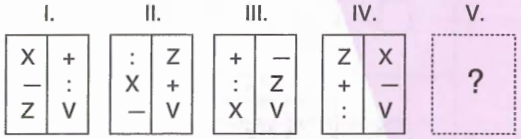
A) 4, 6, 8 B) 5, 6, 7 C) 6, 8, 10
D) 3, 4, 5 E) 5, 7, 9

36.

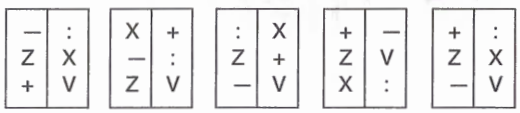


A) 1 B) 2 C) 3 D) 4 E) 5

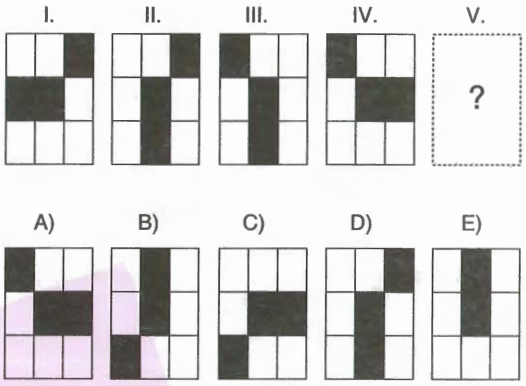
37.



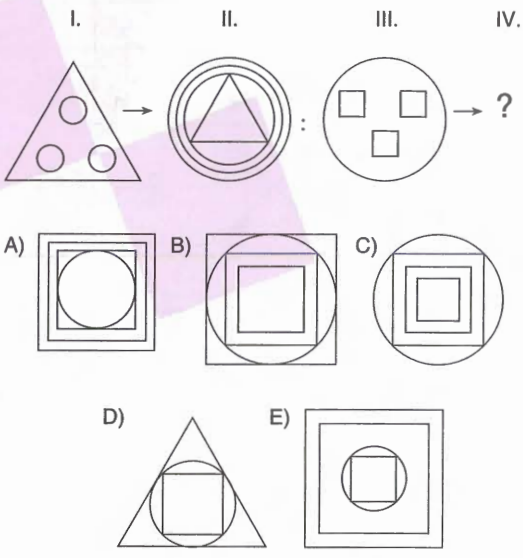
A) B) C) D) E)



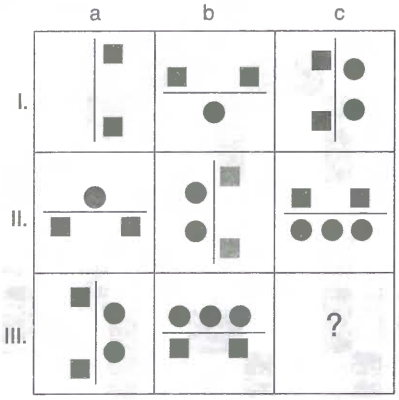
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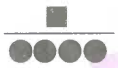


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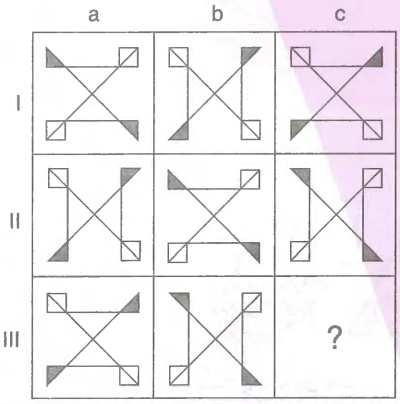


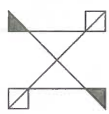
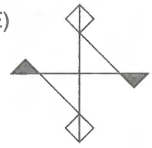
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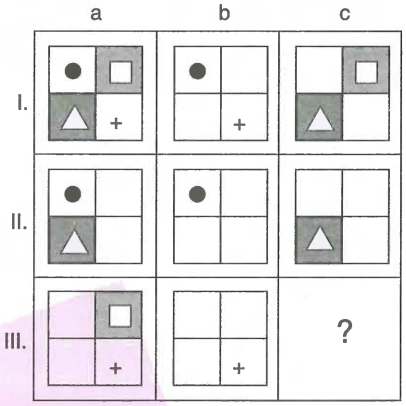
A) 
B) 
C) 
D) 
E) 

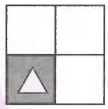
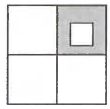
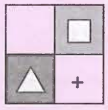
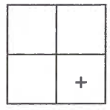
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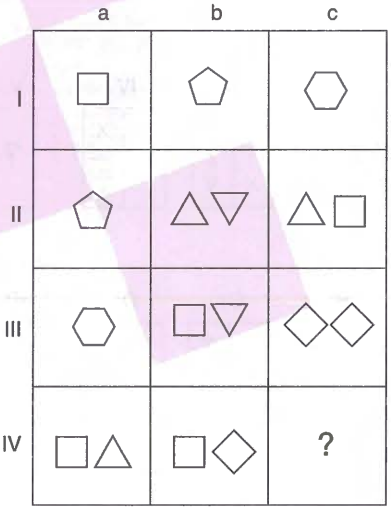
A) 
B) 
C) 
D) 
E) 

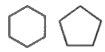
42.



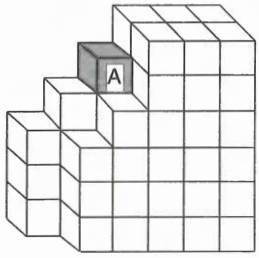
A) 
B) 
C) 
D) 
E) 

43.



A) 
B) 
C) 
D) 
E) 

44.

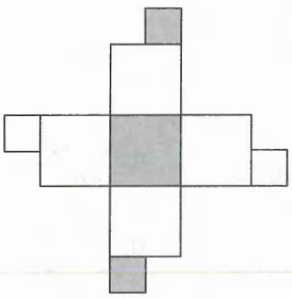


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above?

A) 53 B) 54 C) 55 D) 56 E) 57

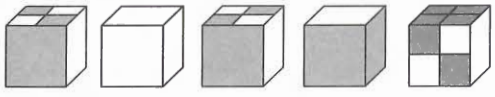
45.



Aşağıdakilerden hangisi yukarıdaki şeklin kapalı halidir?

Which of the followings closed form of the given figure above?

A) B) C) D) E)



46. $a, b, c \in R^+$

$a \cdot b = 10 \quad a \cdot c = 49 \quad b \cdot c = 90 \Rightarrow a = ?$

A) 1 B) $\frac{5}{3}$ C) $\frac{7}{3}$ D) $\frac{5}{2}$ E) $\frac{7}{2}$

47. $\lim_{x \to -2} \left(\frac{x^3 - x + 1}{x^2 + 1} \right) = ?$

A) –1 B) 0 C) 1 D) 2 E) 3

48. $a = \sin 32°$

$b = \sin 170°$

$c = \sin 212°$

$d = \sin 288°$

$a, b, c, d \Rightarrow ? < ? < ? < ?$

A) $a < b < c < d$ B) $c < d < a < b$

C) $d < c < b < a$ D) $d < c < a < b$

E) $c < d < b < a$

49. $\tan^2x - \sec^2x = ?$

A) -1 B) 1 C) 0 D) $-\tan^2x$ E) $-\cot^2x$

50. $7^{x-1} = 3 \Rightarrow x = ?$

A) $\log_{11}7$ B) $\log_7 21$ C) $\log 3$ D) $\log 7$ E) $1{,}24$

51. $f(x) = 5x^2 - 2x \Rightarrow \lim\limits_{x\to 1} \dfrac{f(x)-f(1)}{x-1} = ?$

A) 4 B) 6 C) 8 D) 10 E) 12

52. $f(x) = x^4 + 5x^2 + 1 \Rightarrow f'(1) = ?$

A) 12 B) 13 C) 14 D) 15 E) 16

53. $\int \sqrt{x}\,dx = ?$

A) $\sqrt{x^3} + c$ B) $\dfrac{3}{2}\sqrt[3]{x^2} + c$ C) $\dfrac{2}{3}\sqrt[3]{x^2} + c$ D) $\dfrac{3}{2}\sqrt{x^3} + c$ E) $\dfrac{2}{3}\sqrt{x^3} + c$

54. $\dfrac{d}{dy}\left[\int\left(\dfrac{x^2+5x}{\sin x}\right)dx\right] = ?$

A) 0 B) $\dfrac{x^2+5x}{\sin x} + c$ C) $\dfrac{\sin x}{x^2+5x} + c$ D) $\dfrac{x^3}{3} + \dfrac{5x^2}{2} + c$ E) $2x + c$

55. $A=\begin{bmatrix}1 & 2\\ x & 3\end{bmatrix}$ $B=\begin{bmatrix}2 & y\\ 0 & 1\end{bmatrix}$ $2A-B=\begin{bmatrix}0 & 2\\ 2 & 5\end{bmatrix}$

$\Rightarrow x+y=?$

A) 1 B) 2 C) 3 D) 4 E) 5

56. $\dfrac{\sqrt[4]{0,0081}}{\sqrt[5]{0,00032}}=?$

A) 6 B) 5 C) 2 D) $\frac{3}{2}$ E) $\frac{2}{3}$

57. $\left(3+\frac{7}{3}\right):\left(0,\overline{4}-\frac{7}{3}\right)=?$

A) $\frac{48}{17}$ B) $\frac{32}{17}$ C) $-\frac{48}{17}$ D) $-\frac{16}{17}$ E) $-\frac{3}{17}$

58. $\left.\begin{matrix}2^x=a\\ 3^x=b\end{matrix}\right\}\Rightarrow 54^x=?$

A) a^3b B) a^3b^3 C) ab^2 D) a^2b E) ab^3

59. $a\neq b$

$\left.\begin{matrix}a+b=2\\ \frac{1}{a}+b=\frac{1}{b}+a\end{matrix}\right\}\Rightarrow a^3+b^3=?$

A) 18 B) 16 C) 14 D) 12 E) 10

60. $\dfrac{x^3-1}{x^2-1}:\dfrac{x(x+1)+1}{(x-1)}=?$

A) $\frac{1-x}{x+1}$ B) $\frac{x+1}{x-1}$ C) $\frac{x-1}{x+1}$ D) $\frac{x+2}{x-1}$ E) $\frac{x-1}{x+2}$

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61. $\frac{a}{b}=\frac{c}{d}=5 \Rightarrow \frac{a-c+d-b}{b-d}=?$

A) 2 B) 3 C) 4 D) 5 E) 6

62. $|x-1|+|2x-2| \le 6 \Rightarrow S.S=?$

A) [–3, 1] B) [–2, 2] C) [–1, 3]
D) [0, 2] E) (–2, 2)

63. $a, b \in Z^+$
$3,\overline{18} \cdot a = 4,\overline{9} \cdot b$
$\Rightarrow \min(a+b)=?$

A) 14 B) 15 C) 16 D) 17 E) 18

64. $\frac{a}{3}=\frac{b}{2}=\frac{4}{c}$

$a+b+c=12$
$\Rightarrow c=?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 4

65. $\frac{(x^{-2}-x^{-1})^{-1}}{x} \cdot \frac{x-x^3}{x+1}=?$

A) x–1 B) x+1 C) x^2
D) 1–x E) $-x^2$

66. $\frac{4 \cdot 2^{x+3}-5 \cdot 2^x}{2^{x-2}+2^{x+1}}=?$

A) $\frac{3}{4}$ B) $\frac{9}{4}$ C) 12 D) 21 E) 27

67. $\dfrac{a^2b^2+b^2-2ab^2}{ab-b} = ?$

A) $2a-b$ B) $b-2a$ C) $ab-b$ D) b E) 1

68. $\left.\begin{array}{l}\dfrac{1}{x}-\dfrac{1}{y}=\dfrac{8}{15}\\ x-y=8\end{array}\right\} \Rightarrow x^2+y^2 = ?$

A) 32 B) 33 C) 34 D) 35 E) 36

69. $9\cdot 2^{x+1} - 8\cdot 2^{x-2} = 64 \Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

70. $\left.\begin{array}{l}\dfrac{1}{a}-\dfrac{1}{b}=5\\ \dfrac{1}{a}+\dfrac{2}{b}=7\end{array}\right\} \Rightarrow b = ?$

A) 1 B) $\frac{2}{3}$ C) $\frac{3}{2}$ D) $\frac{3}{4}$ E) $\frac{4}{3}$

71. $\dfrac{3a+2b}{5b} = 4 \Rightarrow \dfrac{a-b}{a+b} = ?$

A) $\frac{6}{7}$ B) $\frac{5}{7}$ C) $\frac{4}{7}$ D) $\frac{4}{5}$ E) $\frac{2}{3}$

72. $\dfrac{|x|+\sqrt{x^2}+1}{4\cdot|x|+2} = ?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 4

73. $\left|\frac{6}{x-1}\right| = \frac{3}{2}$

S.S. = $\{x_1, x_2\}$

$\Rightarrow x_1 \cdot x_2 = ?$

A) -20 B) -15 C) -12 D) -9 E) -8

74. $\frac{2}{\sqrt{3}-1} - \sqrt{7-4\sqrt{3}} - \frac{6}{\sqrt{3}} = ?$

A) $-\sqrt{3}$ B) -2 C) -1

D) 1 E) $\sqrt{3}$

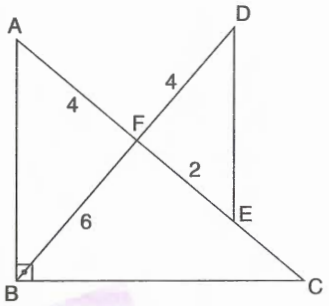
75. $x < 0 < y < 1$

$\Rightarrow |y^2 - y| + |y^2 - x| - |-x| = ?$

A) y B) $2y^2$ C) $2y^2 + y - x$

D) $-2y^2 - 2x + y$ E) $y + 2x$

76.



$[AB] \perp [BC]$

$|BF| = 6$ br

$|AF| = 4$ br

$|FC| = 9$ br

$|FD| = 4$ br

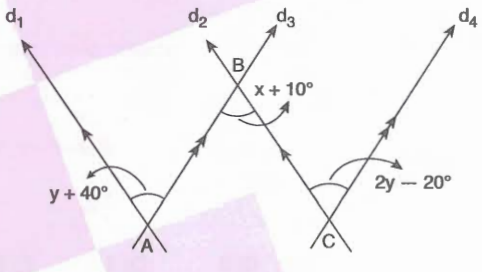
$|FE| = 2$ br

$\Rightarrow |DE| = ?$

A) $3\sqrt{2}$ B) $4\sqrt{3}$ C) $2\sqrt{5}$

D) $3\sqrt{5}$ E) 10

77.



$d_1 // d_2$

$d_3 // d_4$

$m(A) = y + 40°$

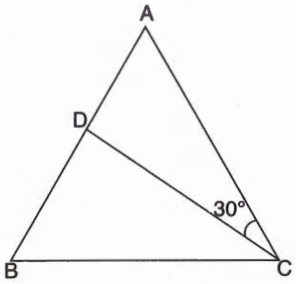
$m(B) = x + 10°$

$m(C) = 2y - 20°$

$\Rightarrow x = ?$

A) 50° B) 60° C) 70° D) 80° E) 90°

78.



$|BD| = |DC|$

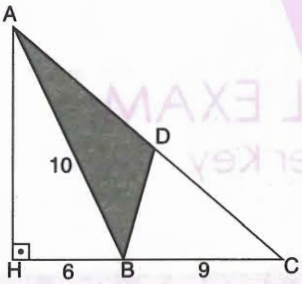
$|AB| = |BC|$

$m(\widehat{ACD}) = 30°$

$\Rightarrow m(\widehat{DCB}) = ?$

A) 40° B) 50° C) 60° D) 70° E) 80°

79.



$[AH] \perp [HC]$

$|AB| = 10$ br

$|HB| = 6$ br

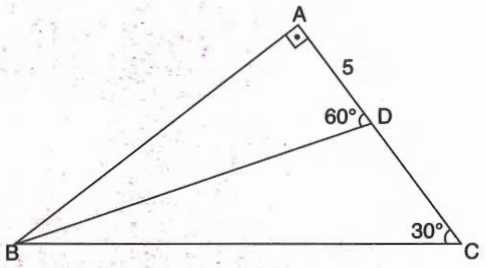
$|BC| = 9$ br

$|AD| = 2|DC|$

$\Rightarrow A(BDA) = ?$

A) 12 B) 18 C) 22 D) 24 E) 26

80.



$[AB] \perp [AC]$

$m(\widehat{BDA}) = 60°$

$m(\widehat{BCD}) = 30°$

$|AD| = 5$ br

$\Rightarrow |BC| = ?$

A) $5\sqrt{3}$ B) $10\sqrt{3}$ C) 10 D) 15 E) 30

DENEME SINAVI 08 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	D	D	C	E	C	B	A	A	D	A	A	E	E	A	E	A	B	D	E

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
C	D	A	E	E	B	C	A	A	A	B	E	A	D	B	A	A	C	A	B

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	C	A	C	D	C	A	C	A	B	C	C	E	A	C	D	C	E	C	C

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C	C	E	D	C	C	C	C	B	C	B	B	B	C	A	C	E	A	D	B

DENEME SINAVI 09
TRIAL EXAM 09

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1.

12594	▲●❑☆✧	
95421	✧☆▲❑●	
42915 ⇒	☆●✧❑▲	⇒ 14259 = ?
14259	❑✧▲●☆	
51492	☆▲●✧❑	

A) ▲●❑☆✧ B) ✧☆▲❑● C) ☆●✧❑▲
D) ❑✧▲●☆ E) ☆▲●✧❑

2.

KEK	393	
ULU	517	
SAR ⇒	242	⇒ SAR = ?
EKE	939	
LUL	424	

A) 517 B) 939 C) 393
D) 242 E) 424

3.

△○	TASA	
○□	LARA	
△☆ ⇒	MALA	⇒ SALATA = ?
●☆	MASA	

A) □△☆ B) △○□ C) ☆○●
D) ☆□△ E) △●☆

4.

TERAS	75186	
SANAT	45781	
TENİS ⇒	45631	⇒ SATEN = ?
SATEN	13734	
NESİR	13457	

A) 75186 B) 45781 C) 45631
D) 13734 E) 13457

5.

84972		TESTİ
27169		SATIR
15214	⇒	RESİM
95248		MİRAS
17849		TAMİR

⇒ 95248 = ?

A) TESTİ B) SATIR C) RESİM D) MİRAS E) TAMİR

6.

$$\begin{array}{r} AB \\ -\ CD \\ \hline 8 \end{array} \qquad \begin{array}{r} CD \\ -\ EF \\ \hline 51 \end{array} \qquad \begin{array}{r} EF \\ +\ AB \\ \hline 109 \end{array}$$

⇒ E + F = ?

A) 5 B) 7 C) 11 D) 12 E) 13

7.

$$\begin{array}{r} KLM \\ \times\ \ LM \\ \hline \bullet\ \bullet\ \bullet \\ +\ \bullet\ 8\ 0 \\ \hline 6\ 5\ 2\ 5 \end{array}$$

K+L+M = ?

A) 8 B) 10 C) 12 D) 14 E) 16

8.

$$\begin{array}{r} KL64 \\ -\ 12LM \\ \hline 6MK9 \end{array}$$

⇒ K + L + M = ?

A) 14 B) 16 C) 18 D) 20 E) 22

9.

$$\begin{array}{r|l} AB & CD \\ \hline - & 2 \\ \hline 2 & \end{array} \qquad \begin{array}{r} AB \\ -\ CD \\ \hline 28 \end{array}$$

⇒ A+B+C+D = ?

A) 9 B) 11 C) 14 D) 17 E) 21

10.

$$\begin{array}{r} K \\ +\ L \\ \hline 13 \end{array} \qquad \begin{array}{r} L \\ +\ M \\ \hline 12 \end{array} \qquad \begin{array}{r} K \\ +\ M \\ \hline 15 \end{array}$$

$\Rightarrow K = ?$

A) 4 B) 6 C) 7 D) 8 E) 9

11. I. $5 \blacktriangle 8 = 27$

II. $6 \blacktriangle 4 = 14$

III. $9 \blacktriangle 7 = 47$

IV. $10 \blacktriangle 5 = ?$

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 30 B) 35 C) 75 D) 135 E) 150

12. I. $2 \bullet 18 = 4$

II. $13 \bullet 22 = 7$

III. $6 \bullet 9 = 3$

IV. $19 \bullet 21 = ?$

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 5 B) 8 C) 9 D) 10 E) 11

13. I. $3 \square 5 = 14$

II. $2 \square 9 = 15$

III. $8 \square 6 = 30$

IV. $7 \square 4 = ?$

Yukarıdaki ilk üç eşitlik ❑ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ❑ is unchanged. What does the question mark stand for in the fourth equation?

A) 23 B) 25 C) 28 D) 32 E) 35

14. I. $4 \Delta 12 = 4$

II. $10 \Delta 15 = 5$

III. $21 \Delta 28 = 7$

IV. $30 \Delta 34 = ?$

Yukarıdaki ilk üç eşitlik Δ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of Δ is unchanged. What does the question mark stand for in the fourth equation?

A) 6 B) 8 C) 9 D) 10 E) 11

15. $134▲ = 47$

$537▲ = 810$

$●572 = 70$

$●238 = 48$

$●658▲ = ●1113 = 3$

$●814▲ = ?$

A) 32 B) 45 C) 135 D) 315 E) 430

16.

+	a	b	c
a			27
b			

x	a	b	c
a		108	
b			54

$$\frac{a}{c-b} = ?$$

A) 1 B) 2 C) 3 D) 4 E) 6

17.

+	a	b	c
a		37	
b			41
c	30		

$\Rightarrow a = ?$

A) 11 B) 13 C) 15 D) 17 E) 24

18.

x	a	b	c
a		96	
b			48
c	72		

⇒ a + b + c = ?

A) 22 B) 24 C) 26 D) 28 E) 30

19.

6	5	22	12
4	8	24	8
7	2	18	14
6	4	A	B

⇒ A + B = ?

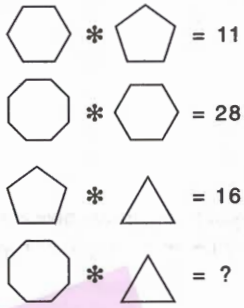
A) 24 B) 26 C) 28 D) 30 E) 32

20.

8	12	4	16
9	7	6	10
15	3	1	17
6	13	8	?

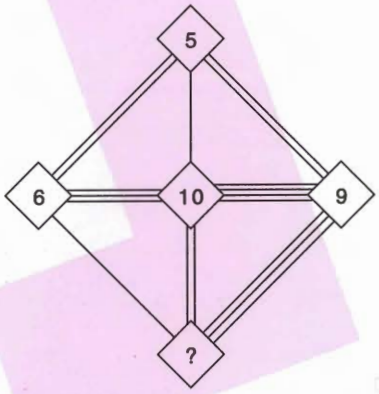
A) 7 B) 9 C) 11 D) 13 E) 15

21.



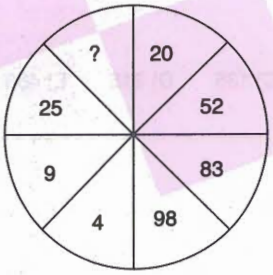
A) 34 B) 42 C) 48 D) 55 E) 62

22.



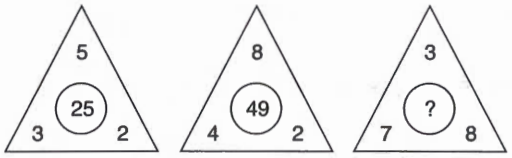
A) 4 B) 6 C) 8 D) 9 E) 11

23.



A) 1 B) 4 C) 16 D) 17 E) 72

24.



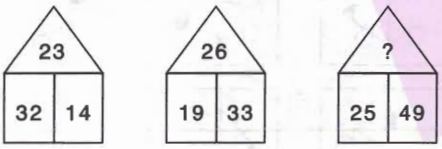
A) 16 B) 36 C) 64 D) 81 E) 100

25.



A) 2 B) 4 C) 18 D) 24 E) 37

26.



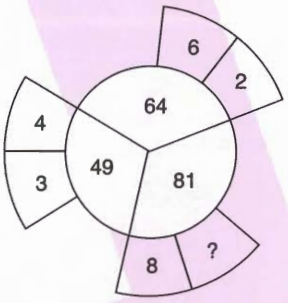
A) 27 B) 29 C) 32 D) 34 E) 37

27.

I :	51	41	32	?	17	11
II :	102	82	64	?	34	22

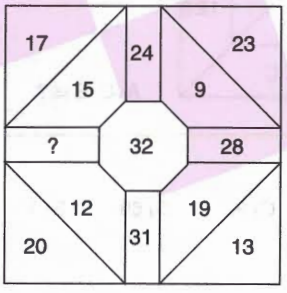
A) 26, 38 B) 24,54 C) 24, 48 D) 26, 48 E) 26, 54

28.



A) 32 B) 16 C) 9 D) 6 E) 1

29.

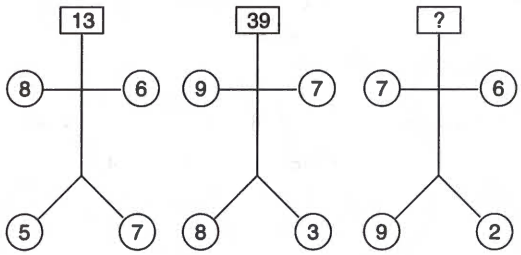


A) 23 B) 20 C) 16 D) 27 E) 25

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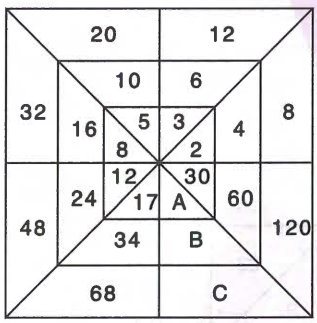
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30.



A) 18 B) 21 C) 24 D) 28 E) 32

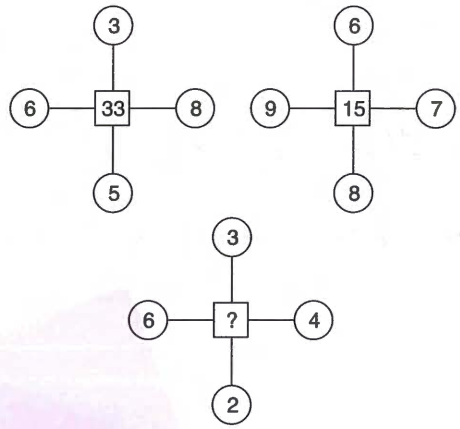
31.



A+C–B = ?

A) 46 B) 54 C) 62 D) 69 E) 76

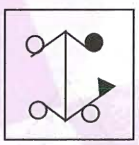
32.

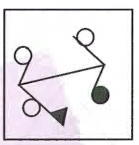


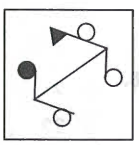
A) 14 B) 16 C) 18 D) 24 E) 30

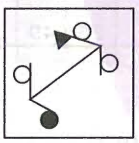
33. Aşağıda verilen şekillerden bir tanesi, bir yönüyle diğerlerinden farklıdır. Farklı olan şekil, hangi seçenekte verilmiştir?

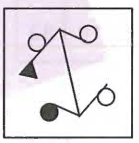
Which of the following figure is different?

A) 

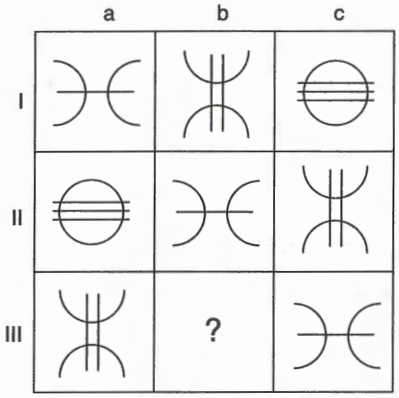
B) 

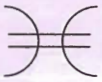
C) 

D) 

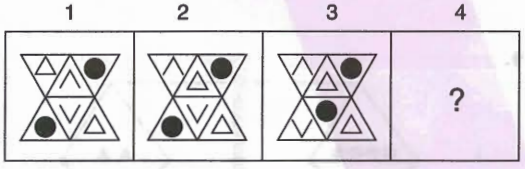
E) 

34.



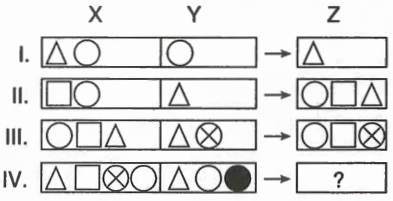
A) 
B) 
C) 
D) 
E) 

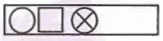
35.



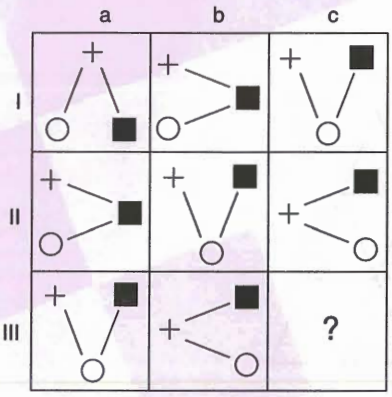
A) 
B) 
C) 
D) 
E) 

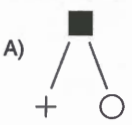
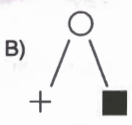
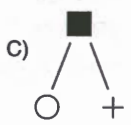
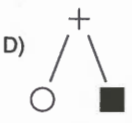
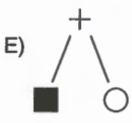
36.



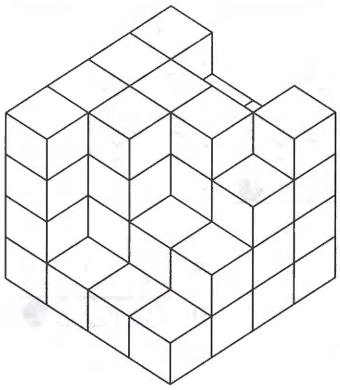
A) 
B) 
C) 
D) 
E) 

37.



A) 
B) 
C) 
D) 
E) 

38.

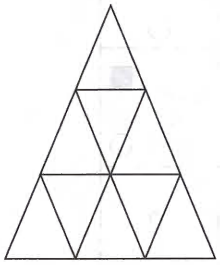


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above?

A) 50 B) 48 C) 44 D) 42 E) 38

39.

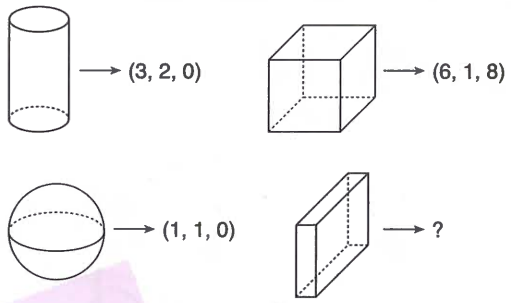


Yukarıdaki şekilde değişik büyüklüklerde en çok kaç tane üçgen vardır?

How many triangles are there in given figure above?

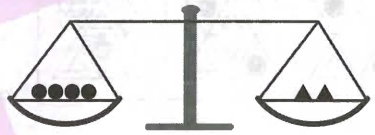
A) 9 B) 12 C) 13 D) 16 E) 18

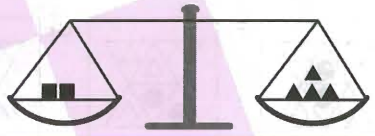
40.



A) 2, 3, 4 B) 6, 2, 4 C) 6, 3, 8
D) 6, 1, 6 E) 6, 4, 8

41.

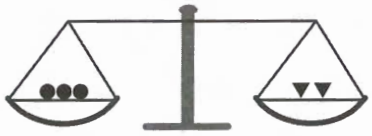
I. 

II. 

III. 

A) ▲▲▲ B) ▲▲ C) ■▲▲
D) ●▲▲ E) ■■▲

42.

I. 

II. 

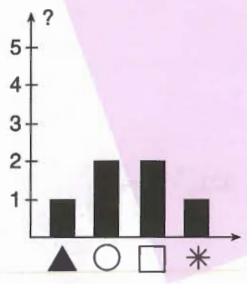
III. 

A) ■▼▼▼ B) ▼▼▼▼▼ C) ●▼●▼●▼

D) ▼▼▼▼▼▼ E) ●■▼●▼

43.

K	L	M	N	P
▲	○	□	✳	□
✳	○	□	✳	□
✳	✳	□	✳	✳
□	▲	✳	▲	✳
▲	□	▲	□	▲
○	□	○	○	○

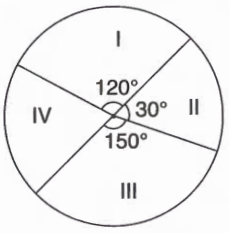


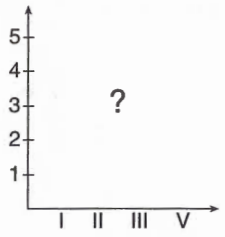
Verilen grafik tablodaki hangi harfe aittir?

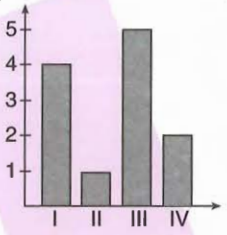
Which letter has a given graph?

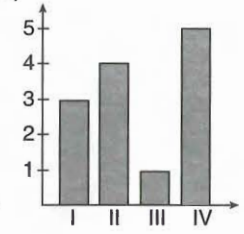
A) K B) L C) M D) N E) P

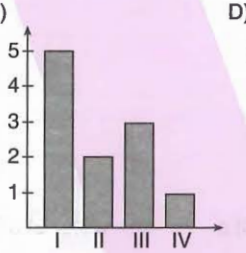
44.

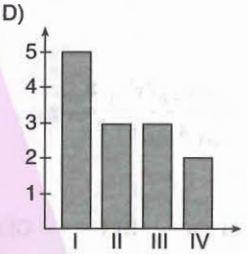


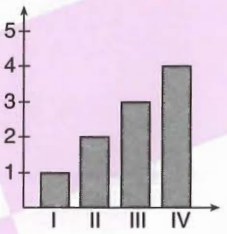


A) 

B) 

C) 

D) 

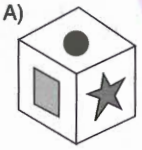
E) 

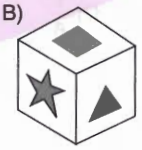
45.



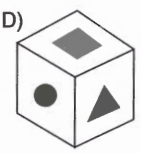
Aşağıdakilerden hangisi bu nesnenin başka bir görünümüdür?

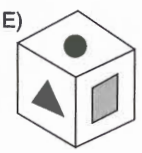
Which of the following is another view of this object?

A) 

B) 

C) 

D) 

E) 

46. $(1240)_5 : (23)_5 = (x)_5 \Rightarrow x = ?$

A) 30 B) 25 C) 23 D) 52 E) 13

47. $\dfrac{-a^2\cdot(-a^2)^3\cdot a^{-2}}{(a)^{-4}\cdot(a^{-5})^{-2}} = ?$

A) $-a$ B) 1 C) a D) $-a^2$ E) a^2

48. $-2^{-2}+3^{-1}-2^{-1} = ?$

A) 6 B) $\frac{5}{12}$ C) $\frac{1}{6}$ D) $-\frac{1}{16}$ E) $-\frac{5}{12}$

49. $\sin(2x) = \frac{2}{3} \Rightarrow \cot x = ?$

A) $-\frac{\sqrt{3}}{2}$ B) $-\frac{1}{2}$ C) $\frac{3-\sqrt{5}}{2}$ D) $\frac{3+\sqrt{5}}{2}$ E) $\frac{2}{3+\sqrt{5}}$

50. $\cos40^\circ\cdot\cos20^\circ - \sin40^\circ\cdot\sin20^\circ = ?$

A) $-\frac{1}{2}$ B) $\frac{1}{2}$ C) $\frac{\sqrt{2}}{2}$ D) $\frac{\sqrt{3}}{2}$ E) 1

51. $\log_9 \sqrt[4]{3} = ?$

A) -4 B) $\frac{1}{8}$ C) $\frac{1}{4}$ D) 4 E) 8

52. $\log_2 \frac{1}{2} + \log_3 1 + \ln e^7 = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

53. $f(x) = 3x^3 \Rightarrow \lim_{h \to 0} \frac{f(2+h) - f(2)}{h.} = ?$

A) 12 B) 18 C) 24 D) 27 E) 36

54. $\int e^{2x} dx = ?$

A) $\frac{e^{2x}}{2} + c$ B) $\ln x + c$ C) $\frac{e^{x+1}}{x+1} + c$

D) $e^{2x} + c$ E) $e^{\frac{x^2}{2}} + c$

55. $\begin{bmatrix} a \\ 2a \end{bmatrix} - \begin{bmatrix} b \\ -b \end{bmatrix} = \begin{bmatrix} 2 \\ 7 \end{bmatrix} \Rightarrow a + b = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

56. $\frac{(n+2)!}{n!} = 13 \cdot n - 23 \Rightarrow n = ?$

A) 5 B) 6 C) 7 D) 8 E) 9

57. $\frac{8^5 + 4^9}{9^{-5} - 81^{-2}} = ?$

A) $\frac{2}{3}$ B) $\frac{9}{4}$ C) 6^{12} D) -6^{12} E) -12^6

58. $\frac{x^6-1}{x^4-1}\cdot\frac{x^2+1}{x^4+x^2+1}=?$

A) 1 B) 0 C) -1

D) x E) x^2-1

59. $f(x)=x+1$

$(gof)(x+1)=x^2+4x+3 \Rightarrow g(x)=?$

A) x^2+1 B) x^2-1 C) x^2+4x+3

D) x^2+2x+3 E) x^2-2

60. $\frac{\sqrt{16}+\sqrt{(-4)^2}}{\sqrt{(-1)^2}-\sqrt{(-3)^2}}=?$

A) -4 B) -2 C) 0 D) 2 E) 4

61. $n(A)=17$

$n(B)=11$

$n(A\setminus B)+n(B\setminus A)=24 \Rightarrow n(A\cap B)=?$

A) 1 B) 2 C) 3 D) 4 E) 5

62. $3\cdot f(x-1)=3\cdot f(x)+2$

$f(1)=5 \Rightarrow f(8)=?$

A) $\frac{1}{5}$ B) $\frac{1}{3}$ C) $\frac{1}{2}$ D) $\frac{2}{3}$ E) $\frac{3}{4}$

63. $(0{,}07)^{-1}-0{,}3:\left(1+\frac{0{,}1}{2}\right)=?$

A) 0,14 B) 1,4 C) 4 D) 14 E) 24

64. $\dfrac{\left(1-\frac{1}{x}\right):\left(\frac{1}{x}-x\right)}{\left(\frac{1}{x+1}-1\right)} = ?$

A) $\frac{1}{x}$ B) 1 C) 0 D) -1 E) $-\frac{1}{x}$

65. $a < b < c < 0$

$\Rightarrow \dfrac{|2ab|+|a-b|-|a-c|+|c-b|}{|a-b|+|a+b|} = ?$

A) $-a$ B) $-b$ C) a D) b E) $2ab$

66. $\dfrac{x+y}{x}+\left[-\dfrac{x}{y-x}-\dfrac{x^2}{xy-y^2}\right]^{-1} = ?$

A) x B) 1 C) $x-y$ D) -1 E) $-x$

67. $a > 0 \quad \dfrac{a}{4}=\dfrac{b}{6}=\dfrac{c}{8}$

$a^2+b^2+c^2 = 232 \Rightarrow a+b+c = ?$

A) 18 B) 16 C) 64 D) $16\sqrt{2}$ E) $18\sqrt{2}$

68. $P(x+1) = x^2-2x+3$

$\Rightarrow P(1-x) = ?$

A) x^2-2x-3 B) $-x^2+2x-3$ C) x^2+2x+3 D) x^2+3x+2 E) $-x^2-2x+3$

69. $f(3^x+2) = 9^x+6 \Rightarrow f(4) = ?$

A) 2 B) 4 C) 8 D) 9 E) 10

70. $f(6x+2) = 4x - 3$

$\Rightarrow f(6) = ?$

A) $-\frac{4}{3}$ B) $-\frac{2}{3}$ C) $-\frac{1}{3}$ D) $\frac{1}{3}$ E) $\frac{2}{3}$

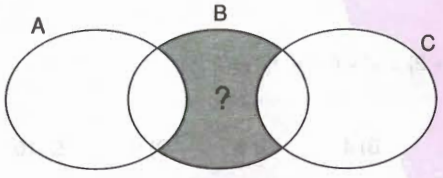
71. $a < 0$

$x = \frac{2a}{3}$ $y = \frac{5a}{4}$ $z = \frac{7a}{6}$ $\Rightarrow ? < ? < ?$

A) $x < y < z$ B) $y < x < z$ C) $z < y < x$

D) $y < z < x$ E) $x < z < y$

72.



Şekildeki taralı alan aşağıdakilerden hangisinde doğru gösterilmiştir?

Which one carrespands to the shaded area in the given figure?

A) $(B \cap C) \setminus A$ B) $(B \setminus A) \setminus C$ C) $(A \cup C) \setminus B$

D) $A \cap B \cap C$ E) $(A \cap C) \cup B$

73. $x^2 + 2mx - 7m + 2 = 0$

$S.S. = \{x_1, x_2\}$

$x_1 = 2 \Rightarrow x_2 = ?$

A) -2 B) -3 C) -4 D) -5 E) -6

74. $x^2 + 2x - 2 = 0 \Rightarrow S.S. = ?$

A) $\{-\sqrt{3}, \sqrt{3}\}$

B) $\{-\sqrt{2}, \sqrt{2}\}$

C) $\{\sqrt{3}-1, -\sqrt{3}-1\}$

D) $\{\sqrt{3}+1, \sqrt{3}-1\}$

E) $\{\sqrt{2}-1, \sqrt{2+1}\}$

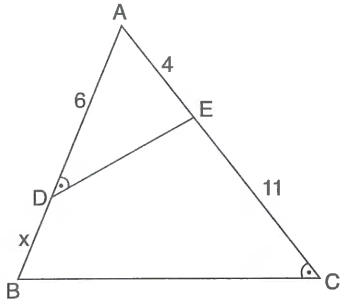
75. $\sqrt{(1-\sqrt{2})^2} - \sqrt{2} = ?$

A) $1-2\sqrt{2}$ B) $-2\sqrt{2}$ C) -1

D) 1 E) $2\sqrt{2}$

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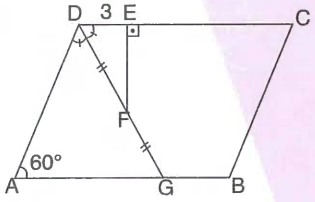
76.



$m(\widehat{ADE}) = m(\widehat{ACB})$
$|AD| = 6$ br
$|AE| = 4$ br
$|EC| = 11$ br
$|DB| = x$
$\Rightarrow$ $x = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

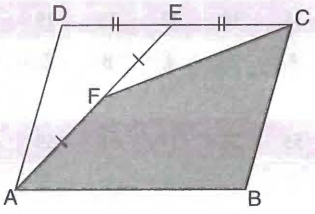
77.



ABCD paralelkenar
(paralellogram)
[DG] açıortay
(bisector)
$|DF| = |FG|$
$|DE| = 3$ br
$m(\widehat{DAB}) = 60°$
$A(ABCD) = 90\sqrt{3}$ br^2
$\Rightarrow |GB| = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

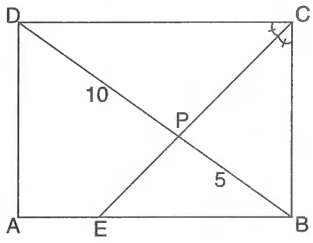
78.



ABCD paralelkenar
(paralellogram)
$|DE| = |EC|$
$|AF| = |FE|$
$A(ABCF) = 15$ br^2
$\Rightarrow A(ABCD) = ?$

A) 24 B) 32 C) 36 D) 48 E) 64

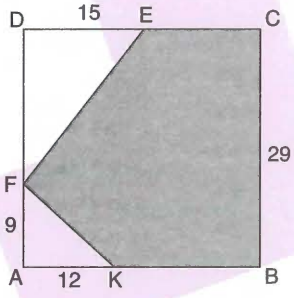
79.



ABCD dikdörtgen
(rectangle)
[CE] açıortay
(bisector)
$|BP| = 5$ br
$|DP| = 10$ br
$\Rightarrow A(ABCD) = ?$

A) 60 B) 75 C) 90 D) 105 E) 120

80.



ABCD kare
(square)
$|DE| = 15$ br
$|AK| = 12$ br
$|FA| = 9$ br
$|BC| = 29$ br
$\Rightarrow$ Ç(KBCEF) = ?
(Perimeter of (KBCEF))

A) 80 B) 96 C) 100 D) 120 E) 136

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DENEME SINAVI 09 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
E	A	C	E	C	B	B	D	D	D	B	B	B	B	B	E	B	C	E	C

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	B	A	D	B	E	C	E	D	C	D	C	D	D	A	E	A	B	C	C

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
A	D	B	A	B	A	B	E	D	B	B	C	E	A	D	A	D	A	B	A

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
B	B	D	A	B	B	E	C	E	C	D	B	E	C	C	D	A	A	C	C

DENEME SINAVI 10
TRIAL EXAM 10

1.

1 2 3 8 5	⇒	★●▲■◆
3 8 2 1 5		●▲■◆★
5 1 2 3 8		●▲★■◆
8 3 1 2 5		■◆▲●★
1 2 5 3 8		◆■●▲★

⇒ 12385 = ?

A) ★●▲■◆ B) ●▲■◆★

C) ●▲★■◆ D) ■◆▲●★

E) ◆■●▲★

2.

3 4 5	⇒	▲★❑
2 1 6		✶◆✶
5 4 3		Δ●■
8 7 9		❑★▲
6 1 2		■●Δ

⇒ 879 = ?

A) ▲★❑ B) ✶◆✶ C) Δ●■

D) ❑★▲ E) ■●Δ

3. KASATURA● = TURAKASA

▲TEPELEME = ETEPELEM

▲MOMENTUM● = OMEMTNMU● = TNMUOMEM

▲SAKLAMAK● = ?

A) AMAKSAKL B) ASLKMAKA

C) KALSAKAM D) MAKAASLK

E) KSLAMAKA

4.

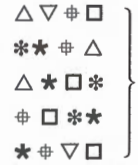
2 1 4 3 5	⇒	7 6 0 9 8
3 4 1 2 5		0 8 6 9 7
5 3 4 1 2		7 9 6 8 0
4 5 1 3 2		8 6 9 7 0
2 4 5 1 3		6 0 9 8 7

⇒ 53412 = ?

A) 76098 B) 08697 C) 79680

D) 86970 E) 60987

5.



1 9 8 7	
3 1 7 5	
3 8 9 7	⇒ ✻⌖□△▽ = ?
5 1 9 3	
9 7 5 1	

A) 57983 B) 79538 C) 53789
D) 93857 E) 59738

6.

$$\begin{array}{r} ABCD \\ -\ DCBA \\ \hline BD5A \end{array}$$

B = ?

A) 1 B) 2 C) 4 D) 7 E) 8

7.

$$\begin{array}{r} AB \\ +\ BA \\ \hline CC \end{array} \qquad \begin{array}{r} C \\ \times\ C \\ \hline D \end{array}$$

⇒ A + B + C + D = ?

A) 8 B) 10 C) 12 D) 15 E) 24

8.

$$\begin{array}{r} AB \\ \times\ B \\ \hline CB \end{array} \qquad \begin{array}{r} AD \\ \times\ D \\ \hline ED \end{array}$$

⇒ E + C = ?

A) 9 B) 12 C) 14 D) 16 E) 17

9.

$$\begin{array}{r} 1A5 \\ \times\ A5 \\ \hline 7B. \\ +\ \ .\,.\,0 \\ \hline 65B5 \end{array}$$

⇒ A + B = ?

A) 6 B) 8 C) 9 D) 11 E) 14

10.

A	5
	B

B	6
	C

A+B	36
	C

4 5 D

$\Rightarrow D = ?$

A) 9 B) 14 C) 23 D) 29 E) 34

11. I. $12 \bullet 6 = 30$
II. $5 \bullet 5 = 20$
III. $8 \bullet 14 = 50$
IV. $19 \bullet 7 = ?$

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 24 B) 30 C) 34 D) 40 E) 46

12. I. $3 \blacksquare 6 = 15$
II. $8 \blacksquare 9 = 73$
III. $5 \blacksquare 7 = 32$
IV. $4 \blacksquare 8 = ?$

Yukarıdaki ilk üç eşitlik ■ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ■ is unchanged. What does the question mark stand for in the fourth equation?

A) 20 B) 24 C) 30 D) 38 E) 44

13. I. $38 \blacktriangle 16 = 30$
II. $27 \blacktriangle 45 = 34$
III. $93 \blacktriangle 18 = 35$
IV. $67 \blacktriangle 35 = ?$

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 38 B) 41 C) 46 D) 52 E) 57

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14. I. $a \star b = a^3 + 3a^2b + 3ab^2 + b^3$
II. $2 \star 1 = 27$
III. $3 \star 2 = ?$

A) 56 B) 64 C) 81 D) 125 E) 216

15. ▲45 = 41 ●28 = 20
▲36 = 45 ●54 = 18

▲28● = 68● = 28
▲71● = ?

A) 10 B) 16 C) 18 D) 28 E) 30

16.

+	x	y
z	8	
t		3

$\Rightarrow x \cdot y + y \cdot z + z \cdot t + t \cdot x = ?$

A) 11 B) 16 C) 20 D) 24 E) 32

17.

+	a	b
c	5	
d		9

x	a	b
a		10
d	12	

$\Rightarrow a \cdot b + c \cdot d = ?$

A) 18 B) 20 C) 23 D) 25 E) 28

18.

+	a	b	c
a		12	9
b			11

x	a	b	c
a		x	y
b			z

$\Rightarrow x + y + z = ?$

A) 70 B) 74 C) 78 D) 83 E) 90

19.

x	a	b	c
a	64		
b			24
c	48		

$\Rightarrow \sqrt{2(a+b+c)} = ?$

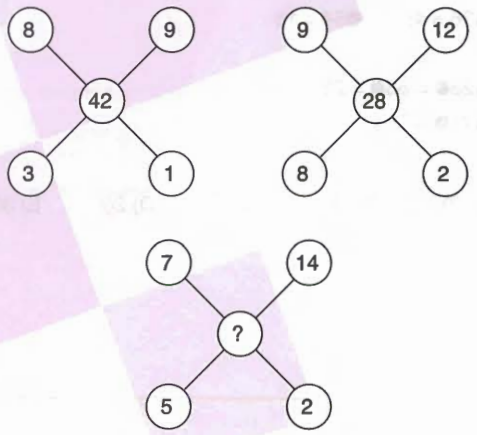
A) 4 B) 6 C) 8 D) 10 E) 12

20

5	7	9	30
8	3	5	21
7	9	8	32
2	8	7	?

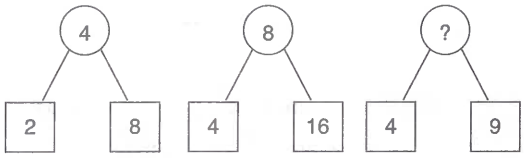
A) 18 B) 22 C) 24 D) 26 E) 28

21.



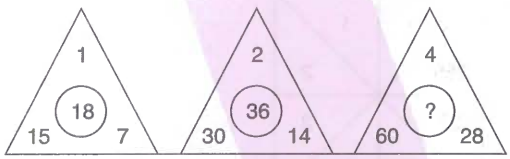
A) 38 B) 42 C) 45 D) 48 E) 52

22.



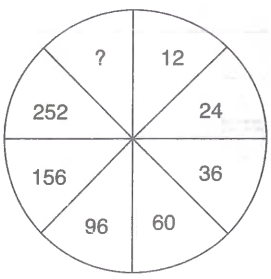
A) 5 B) 6 C) 7 D) 9 E) 28

23.



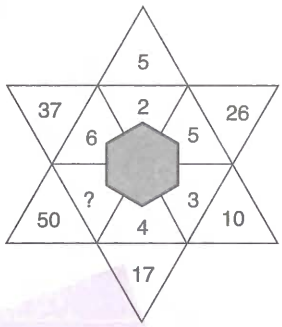
A) 44 B) 58 C) 65 D) 72 E) 84

24.



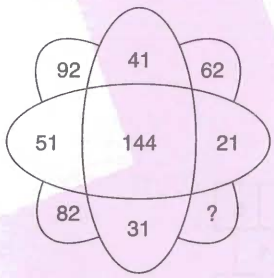
A) 306 B) 408 C) 512 D) 548 E) 604

25.



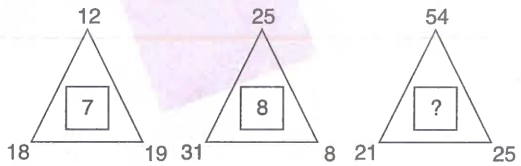
A) 1 B) 7 C) 8 D) 9 E) 10

26.



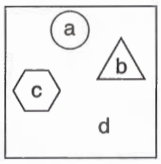
A) 52 B) 32 C) 22 D) 62 E) 42

27.

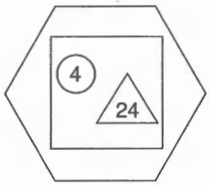


A) 9 B) 10 C) 11 D) 12 E) 13

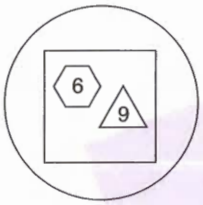
28.

I. 

$= a^2 + \frac{b}{3} + \frac{c}{2} + d$

II. 

= 12

III. 

= ?

A) 16 B) 25 C) 36 D) 49 E) 64

29.

2	7	5	4	6	5
23	19	19	27	?	
8	6	1	9	8	2

A) 18 B) 21 C) 23 D) 25 E) 28

30.

1	4	5	14	9	32	13	A
2	3	8	7	22	11	44	B

A + B = ?

A) 57 B) 63 C) 68 D) 73 E) 77

31. I : ? 5 9 17 33
II : 18 25 ? 51 66

A) 3, 36 B) 2, 32 C) 4, 34
D) 2, 36 E) 3, 32

32.

? / 256	1 / 2
32 / 8	2 / 4

A) 512 B) 1024 C) 2048
D) 5096 E) 8192

33.

		2	4		
	3	5	6	2	
1	4	12	22	7	5
3	7	24	?	9	2
	4	9	8	7	
		5	1		

A) 16 B) 18 C) 20 D) 23 E) 25

34.

3	8	6
	9	
	11	
	17	

6	9	8
	14	
	15	
	23	

2	4	10
	A	
	B	
	C	

A + B + C = ?

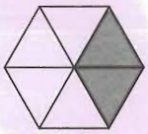
A) 30 B) 32 C) 34 D) 36 E) 38

35. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which of the followings is different?

A) 

B) 

C) 

D) 

E) 

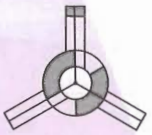
36. Aşağıdakilerden hangisi diğerlerinden farklıdır?

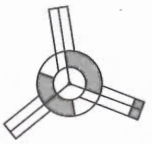
Which of the followings is different?

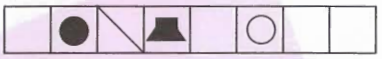
A) 

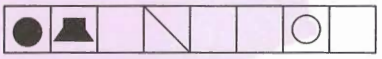
B) 

C) 

D) 

E) 

37. I. 

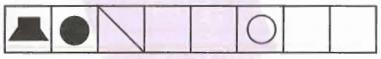
II. 

III. 

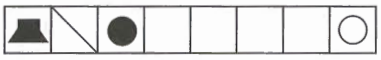
IV. ?

I. ile II. şekil arasında bir ilişki vardır. Benzer ilişki III. ile aşağıdakilerden hangisi arasında vardır?

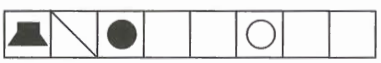
There is a relation between I and II, same relation between III and IV. Which of the followings is IV?

A) 

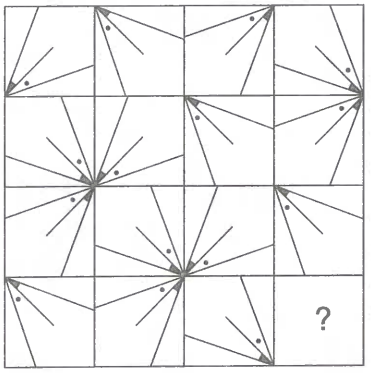
B) 

C) 

D) 

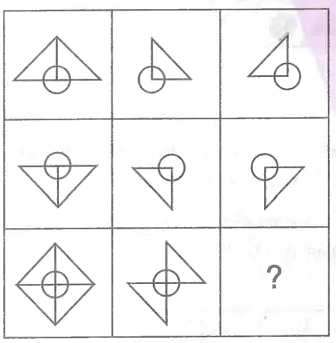
E) 

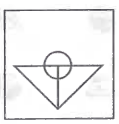
38.



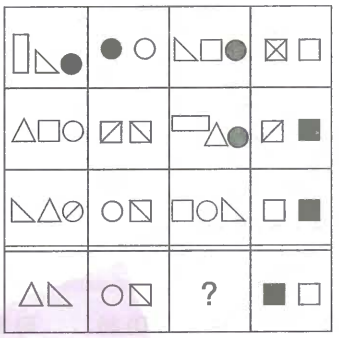
A) 
B) 
C) 
D) 
E) 

39.



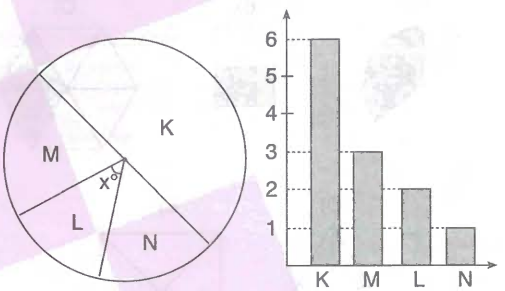
A) 
B) 
C) 
D) 
E) 

40.



A) 
B) 
C) 
D) 
E) 

41.

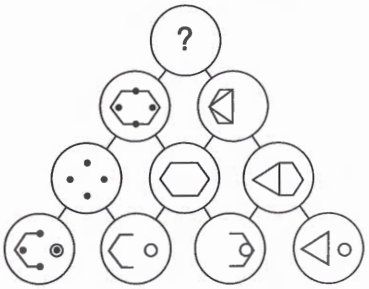


x° = ?

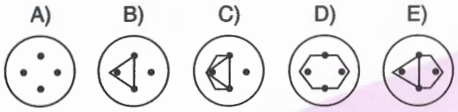
A) 30 B) 60 C) 90 D) 120 E) 150

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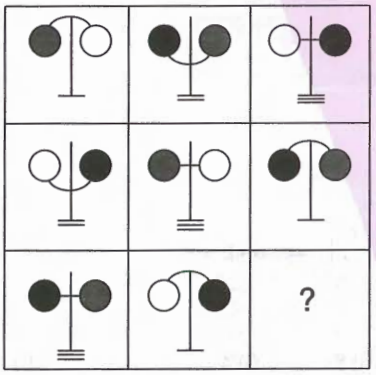
42.



A) B) C) D) E)



43.



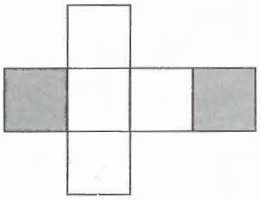
A) B) C)



D) E)



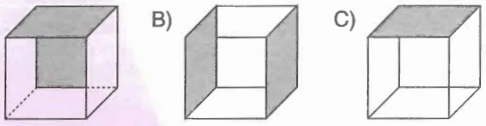
44.



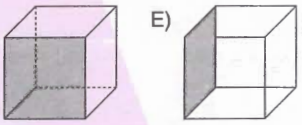
Verilen şekli kapalı hali aşağıdakilerden hangisidir?

Which of the followings is closed form of given shape?

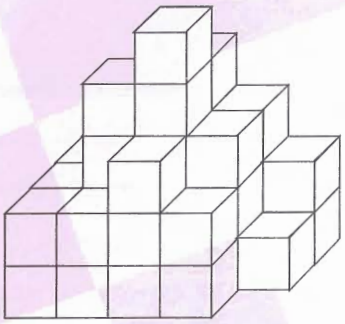
A) B) C)



D) E)



45.



Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above?

A) 31 B) 33 C) 35 D) 37 E) 39

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46. $\dfrac{x^2-16}{x^2+2x-8} : \dfrac{x^2-8x+16}{x^2+3x-10} = ?$

A) $\dfrac{x+5}{x-4}$ B) $\dfrac{x-4}{x+5}$ C) $\dfrac{x+4}{x}$

D) x E) x+4

47. $\log_3 12 - \log_3 4 = ?$

A) $\dfrac{1}{9}$ B) $\dfrac{1}{3}$ C) 1 D) 3 E) 9

48. $f(x) = \sqrt[4]{x^3}$

$\Rightarrow f'(16) = ?$

A) $\dfrac{3}{4}$ B) $\dfrac{3}{8}$ C) $\dfrac{1}{4}$ D) $-\dfrac{1}{2}$ E) $-\dfrac{3}{4}$

49. $f(x) = (x^2+1)\cdot(2x+1) \Rightarrow f'(x) = ?$

A) 4x B) $6x^2 + 3x$

C) $3x^2 + 2x + 3$ D) $6x^2 + 2x + 2$

E) $4x^2 + 2$

50. $\int 2^{x+1} dx = ?$

A) $\dfrac{2^{x+1}}{x+1} + c$ B) $2^{x+1} + c$ C) $\dfrac{2^x}{\ln 2} + c$

D) $\dfrac{2^{x+1}}{\ln 2} + c$ E) $2^x.\ln 2 + c$

51. $a, b \in Z$

$b\cdot\begin{bmatrix}a\\2\end{bmatrix} + \begin{bmatrix}3\\a\end{bmatrix} = \begin{bmatrix}8\\11\end{bmatrix} \Rightarrow a+b = ?$

A) 6 B) 5 C) 4 D) 3 E) 2

52. $\frac{4-5x}{6}-\frac{x+2}{4}=-2 \Rightarrow x=?$

A) -2 B) 1 C) 2 D) 3 E) 4

53. $2<x<3$

$\Rightarrow \frac{|x-2|+5}{|x-3|-6}=?$

A) $-x$ B) -1 C) $\frac{1}{2}$ D) 1 E) x

54. $\frac{n(A-B)}{3}=\frac{n(B-A)}{4}=\frac{n(A\cap B)}{2}$

$n(A \cup B)=18 \Rightarrow n(A)=?$

A) 8 B) 9 C) 10 D) 12 E) 16

55. $\lim_{x\to -1}\frac{\sin\left(\frac{\pi}{2}x\right)-\tan\left(\frac{\pi}{4}x\right)}{\cos(\pi x)-1}=?$

A) 3 B) 2 C) 1 D) 0 E) -1

56. $\frac{\sqrt{125}-\sqrt{(-10)^2}}{\sqrt{(2-\sqrt{5})^2}}=?$

A) -5 B) -3 C) -1 D) 5 E) 8

57. $a=-2 \quad b=-3$

$\Rightarrow a^{-b}+b^{-a}=?$

A) -2 B) $-\frac{1}{72}$ C) $\frac{1}{72}$ D) 1 E) 17

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58. $f(x) = 3^{x+2} \Rightarrow \dfrac{f(x+1)}{f(x-1)} = ?$

A) 9 B) 12 C) 18 D) 27 E) 81

59. $mx^2 - (m-4)x - 2m + 5 = 0$
$x_1 + x_2 = 0 \Rightarrow x_1 \cdot x_2 = ?$

A) $\frac{9}{2}$ B) $\frac{1}{2}$ C) 0 D) $-\frac{1}{2}$ E) $-\frac{3}{4}$

60. $\dfrac{\sqrt{0,4} + \sqrt{0,9} + \sqrt{1,6}}{\sqrt{10}} = ?$

A) 0,5 B) 0,6 C) 0,7 D) 0,8 E) 0,9

61. $f^{-1}(x) = \dfrac{x-a}{b}$

$\left.\begin{matrix} f(2) = 4 \\ f(3) = 6 \end{matrix}\right\} \Rightarrow a - b = ?$

A) 2 B) 1 C) 0 D) –1 E) –2

62. $|\sqrt{5} - \sqrt{6}| + |3 - \sqrt{6}| + |\sqrt{20} - 3| = ?$

A) $-\sqrt{5}$ B) 0 C) $\sqrt{5}$ D) $\sqrt{6}$ E) 3

63. $\dfrac{2 - 1,\overline{7}}{1,\overline{3} - 2} + \dfrac{1}{0,\overline{6}} = ?$

A) $\frac{3}{5}$ B) $\frac{3}{4}$ C) $\frac{7}{6}$ D) $\frac{4}{3}$ E) $\frac{5}{2}$

64. $\dfrac{x^2-3x-10}{x^{y+1}-5x^y} : \dfrac{1}{x^{y+1}} = ?$

A) $x+2$ B) x C) x^2+2x D) $x-2$ E) x^2-2x

65. $\sin x - \cos x = \dfrac{2}{3} \Rightarrow \sin x \cdot \cos x = ?$

A) $\dfrac{4}{9}$ B) $\dfrac{5}{9}$ C) $\dfrac{5}{18}$ D) $\dfrac{1}{6}$ E) $\dfrac{1}{9}$

66. $\left.\begin{array}{l}\dfrac{a+b}{c}=2\\ \dfrac{3a+b}{c}=6\end{array}\right\} \Rightarrow \dfrac{a}{c} = ?$

A) 1 B) 2 C) 3 D) 4 E) 6

67. $f(x)=\dfrac{x}{x-4} \Rightarrow f(4-x) = ?$

A) $4f(x)$ B) $2f(x)$ C) $\dfrac{1}{f(x)}$ D) $-\dfrac{1}{f(x)}$ E) $\dfrac{1}{f^2(x)}$

68. $x < 0$

$\left|-2x + \left|3x - |x|\right|\right| + \left|3 + |-3x|\right| = ?$

A) $3-x$ B) $3-9x$ C) $3-3x$ D) $9x$ E) $3x$

69. $\dfrac{1+\frac{1}{2}-\frac{3}{5}}{1-\frac{1}{2}+\frac{3}{5}} = ?$

A) $\dfrac{1}{2}$ B) $\dfrac{7}{11}$ C) $\dfrac{9}{11}$ D) $\dfrac{4}{5}$ E) 1

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70. $P(3x) = P(2x-1)+4x+1$
$\Rightarrow P(6) - P(1) = ?$

A) –14 B) –7 C) 0 D) 7 E) 14

71. $x \cdot f(x) = f(x^2 + 1) + x - 4$
$\Rightarrow f(5) = ?$

A) 4 B) 7 C) 10 D) 16 E) 22

72. $(\sin x + \cos x + 1) \cdot (\cos x + \sin x - 1) = ?$

A) $\sin(2x)$ B) $\cos(2x)$ C) $1 + \tan x$
D) $\cot x$ E) 1

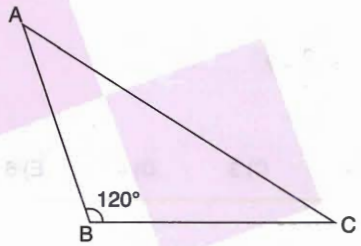
73. $\frac{(n+2)!}{n!} = 42 \Rightarrow n = ?$

A) 2 B) 4 C) 5 D) 6 E) 9

74. $\tan 15° + \cot 15° = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

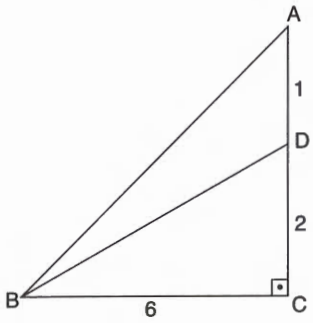
75.



$m(\widehat{ABC}) = 120°$
$|AB| = 6$ br
$|BC| = 4$ br
$\Rightarrow |AC| = ?$

A) $2\sqrt{3}$ B) $2\sqrt{17}$ C) $2\sqrt{19}$
D) $2\sqrt{21}$ E) $2\sqrt{23}$

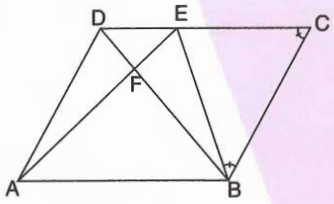
76.



[AC] ⊥ [BC]
|AD| = 1 br
|DC| = 2 br
|CB| = 6 br
⇒ tan(ABD) = ?

A) $-\frac{1}{7}$ B) $\frac{1}{7}$ C) $\frac{2}{3}$ D) $\frac{2}{7}$ E) 1

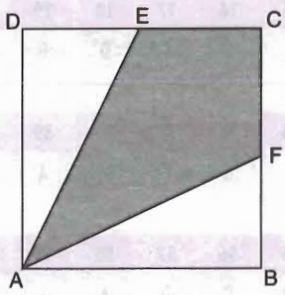
77.



ABCD
paralelkenar
(paralellogram)
m(DCB) = m(EBC)
|AF| = 3|FE|
|DE| = 4 br
⇒ |BE| = ?

A) 4 B) 5 C) 6 D) 7 E) 8

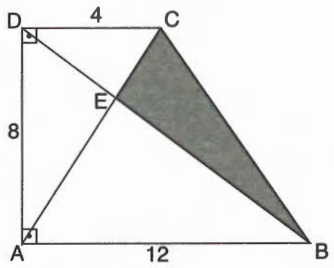
78.



ABCD kare *(square)*
|BF| = 2|FC|
|DE| = |EC|
A(ABCD) = 144 br²
⇒ A(AFCE) = ?

A) 60 B) 64 C) 70 D) 80 E) 84

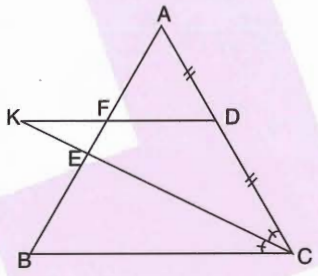
79.



ABCD dik yamuk
(right angled trapezoid)
[AB] ⊥ [AD]
[AD] ⊥ [DC]
|DC| = 4 br
|AD| = 8 br
|AB| = 12 br
⇒ A(ECB) = ?

A) 8 B) 10 C) 12 D) 14 E) 16

80.



[CK] açıortay
(bisector)
[KD] // [BC]
|AD| = |DC|
|KF| = 5 br
|AC| = 18 br
⇒ |BC| = ?

A) 6 B) 7 C) 8 D) 9 E) 10

DENEME SINAVI 10 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	B	D	B	E	B	D	D	A	E	D	B	E	D	A	D	C	D	B	C

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
C	B	D	B	B	A	B	C	B	D	A	E	C	C	E	B	E	A	A	D

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
B	E	A	A	C	A	C	B	D	D	A	C	B	C	D	D	D	A	E	E

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
E	C	C	C	C	B	C	B	C	E	D	A	C	D	C	B	E	A	C	C

DENEME SINAVI 11
TRIAL EXAM 11

1.

TOP	123
TOK	526
MOD	124
HOP	723
KOP	423

⇒ KOP = ?

A) 123 B) 723 C) 526
D) 423 E) 124

2.

12345	TATAR
14325	KATİP
34641	KİBAR
34346	KİTAP
12746	TARAK

⇒ 12345 = ?

A) TATAR B) KATİP C) KİBAR
D) KİTAP E) TARAK

3.

MELEK	ABCBD
NADİR	AEFEG
DEMİR	DEHLG
SELEN	HBKLG
SAKAR	KBCBF

⇒ DEMİR = ?

A) ABCBD B) AEFEG C) DEHLG
D) HBKLG E) KBCBF

4. MARMARİS = ?

A) 34524567 B) 25625685 C) 76576589
D) 85655678 E) 12342335

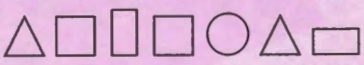
5. KELEBEK = ?

A) 

B) 

C) 

D) 

E) 

6.

$$\begin{array}{r} ABB \\ +\ \ A \\ \hline C00 \end{array}$$

⇒ C = ?

A) 1 B) 2 C) 3 D) 4 E) 5

7.

$$\begin{array}{r} AB \\ C \\ \times \\ \hline AB \end{array} \qquad \begin{array}{r} A \\ D \\ - \\ \hline C \end{array} \qquad \begin{array}{r} AD \\ DA \\ - \\ \hline B \end{array} \qquad \Rightarrow B = ?$$

A) 5 B) 6 C) 7 D) 8 E) 9

8.

$$\begin{array}{r} AB \\ B \\ \times \\ \hline 336 \end{array} \qquad \begin{array}{r} CD \\ D \\ \times \\ \hline 336 \end{array} \qquad \begin{array}{r} A \\ B \\ C \\ D \\ + \\ \hline ? \end{array}$$

A) 16 B) 20 C) 23 D) 27 E) 29

9.

$$\begin{array}{r} ABC \\ CBA \\ BAC \\ + \\ \hline 1A6A \end{array} \qquad A = ?$$

A) 3 B) 4 C) 5 D) 7 E) 8

10. I. 73 ▲ 39 = 68

II. 57 ▲ 42 = 30

III. 89 ▲ 51 = 76

IV. 96 ▲ 65 = ?

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 43 B) 52 C) 62 D) 68 E) 74

11. I. 70 ● 52 = 10

II. 82 ● 40 = 10

III. 95 ● 71 = 10

IV. 51 ● 83 = ?

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 4 B) 6 C) 7 D) 9 E) 10

12. I. 33 ■ 41 = 37

II. 82 ■ 34 = 58

III. 75 ■ 27 = 51

IV. 54 ■ 32 = ?

Yukarıdaki ilk üç eşitlik ■ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ■ is unchanged. What does the question mark stand for in the fourth equation?

A) 39 B) 41 C) 43 D) 47 E) 53

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13. I. 56254● → 2
II. 35876● → 1
III. 15525● → 3
IV. 82917● → 0
V. 52535● → ?

A) 0 B) 1 C) 2 D) 3 E) 4

14. I. 136 ■ 247 → 23
II. 381 ■ 582 → 27
III. 674 ● 351 → 8
IV. 980 ● 257 → 3
V. (824 ■ 375) ● (484 ■ 260) = ?

A) 3 B) 5 C) 6 D) 8 E) 11

15.

+	a	b	c
a		$\frac{4b}{3}$	
b			8
c	6		

⇒ a·b·c = ?

A) 6 B) 8 C) 12 D) 15 E) 20

16.

x	a	b	c
a	8 · c		
b		2 · c	
c			

$\Rightarrow \left(\frac{a\cdot\sqrt{c}}{b^2}\right)^2 = ?$

A) 2 B) 4 C) 8 D) 16 E) 24

17.

$\sqrt{x}$	a	b	c
a			4
b	$2\sqrt{2}$		
c		$4\sqrt{2}$	

⇒ a + b + c = ?

A) 8 B) 10 C) 12 D) 14 E) 16

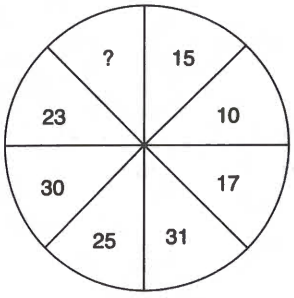
18.

+	a	b	c
a		16	
b			12
c	14		

⇒ $(b + c - a)^2$ = ?

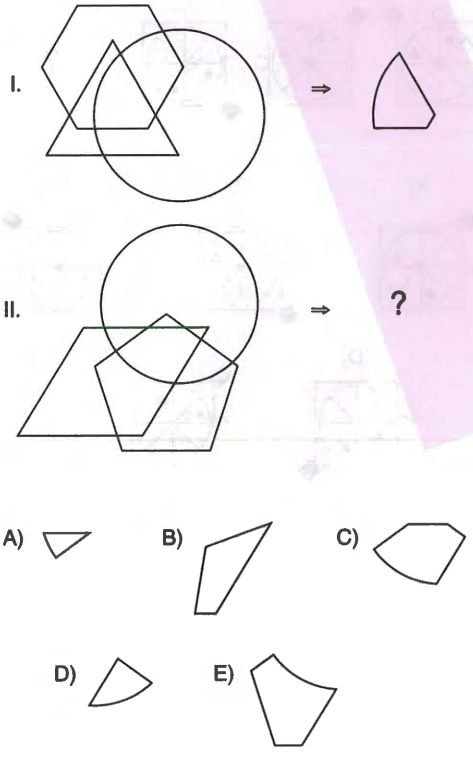
A) 1 B) 4 C) 9 D) 16 E) 25

19.

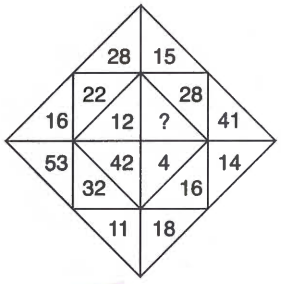


A) 9 B) 10 C) 19 D) 24 E) 36

20.

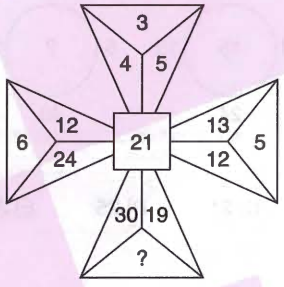


21.



A) 21 B) 24 C) 26 D) 16 E) 8

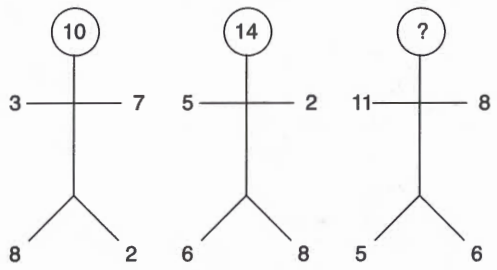
22.



A) 4 B) 7 C) 2 D) 8 E) 9

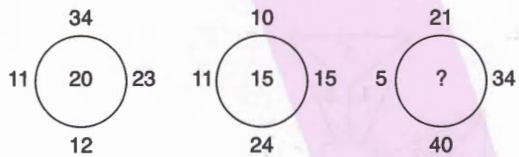
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23.



A) 2 B) 7 C) 12 D) 18 E) 21

24.



A) 12 B) 16 C) 21 D) 25 E) 30

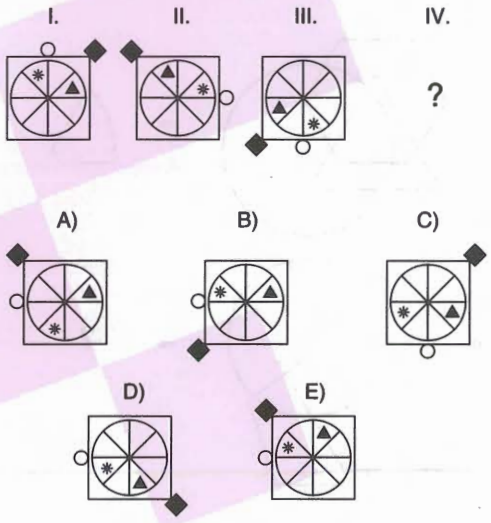
25. I : 32 ? 8 4 2

II : 64 48 ? 20 12

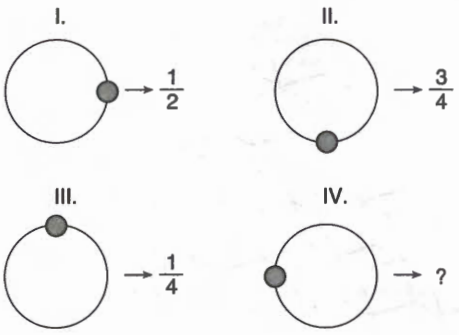
A) 32, 24 B) 24, 16 C) 24, 32

D) 16, 24 E) 16, 32

26.

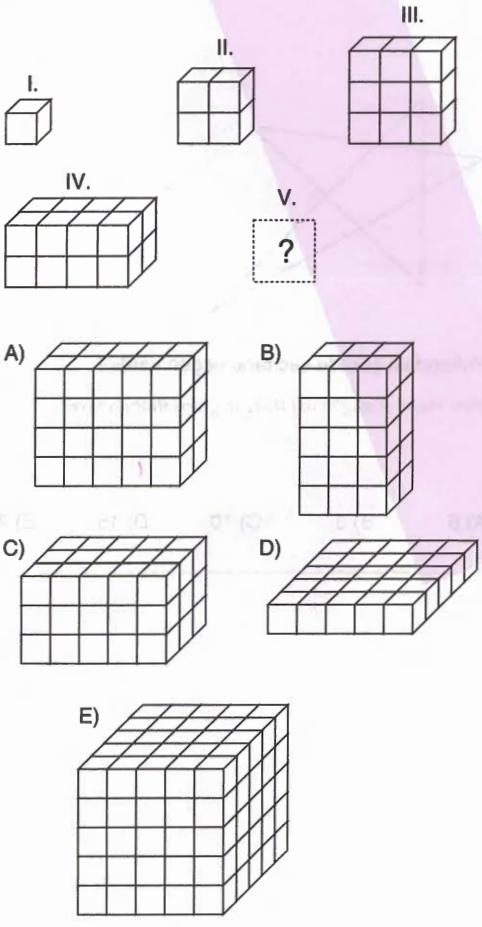


27.

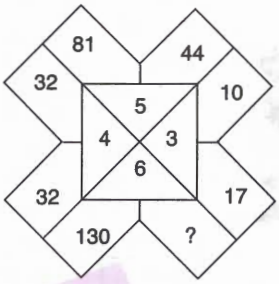


A) $\frac{3}{2}$ B) $\frac{2}{5}$ C) $\frac{1}{4}$ D) 1 E) $\frac{5}{4}$

28.

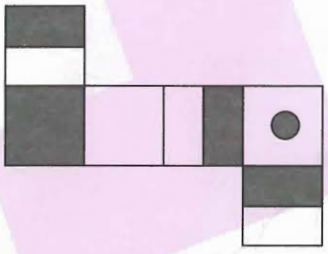


29.



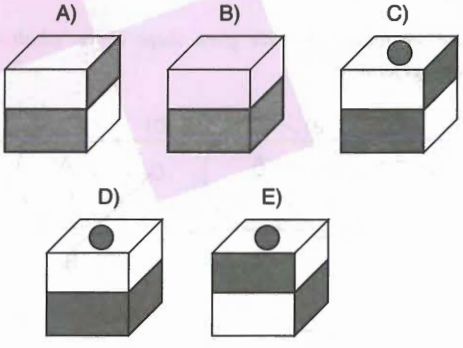
A) 44 B) 55 C) 73 D) 86 E) 94

30.



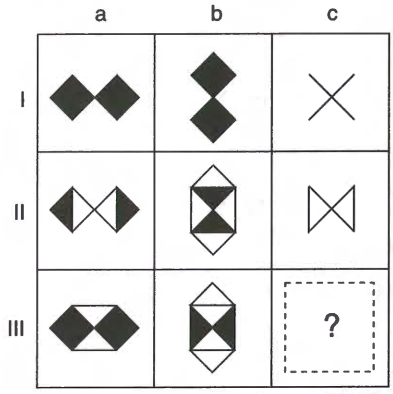
Yukarıda açık şekli verilmiş olan küpün kapalı duruma getirilmiş şekli aşağıdakilerden hangisidir?

Which of the followings is closed form of given cube above?



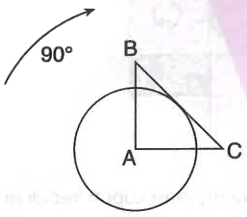
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31.



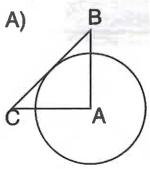
A) 
B) 
C) 
D) 
E) 

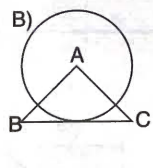
32.

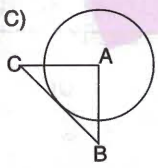


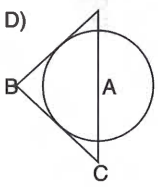
Yukarıda verilen şekil bir düzlem üzerinde 90° sağa döndürülürse, hangi seçenekte verilmiş olan şekil elde edilir?

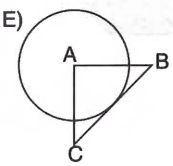
When we rotate right side given shape above, which of the followings formed?

A) 

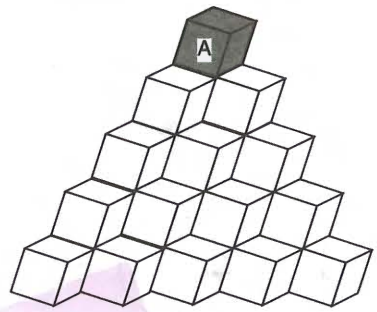
B) 

C) 

D) 

E) 

33.

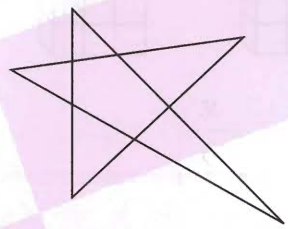


Yukarıdaki şekilde görünmeyen kaç küp vardır?

How many cubes are there in given figure above, which can't be seen?

A) 16 B) 20 C) 28 D) 32 E) 36

34.

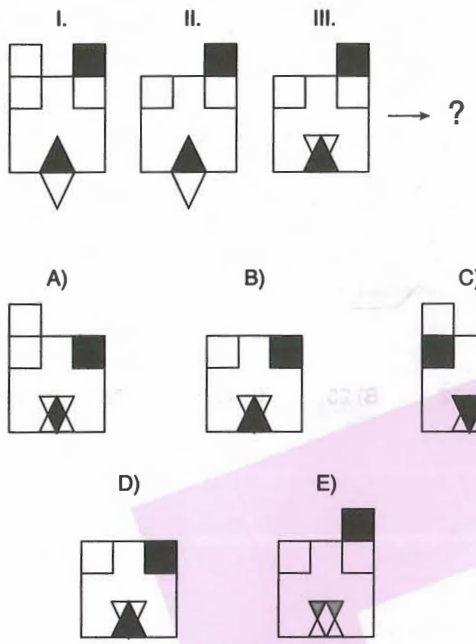


Yukarıdaki şekilde kaç tane üçgen vardır?

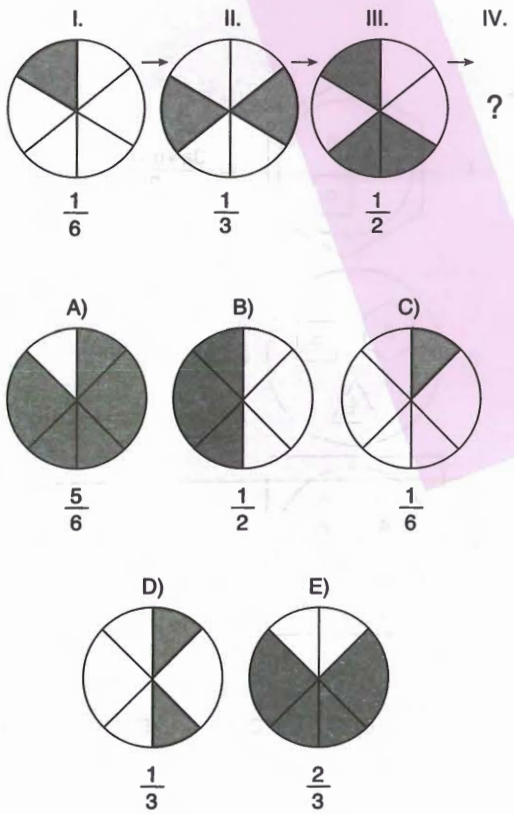
How many triangles are there in given shape above?

A) 5 B) 8 C) 10 D) 15 E) 20

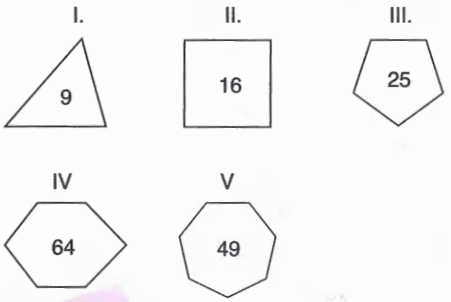
35.



36.



37.

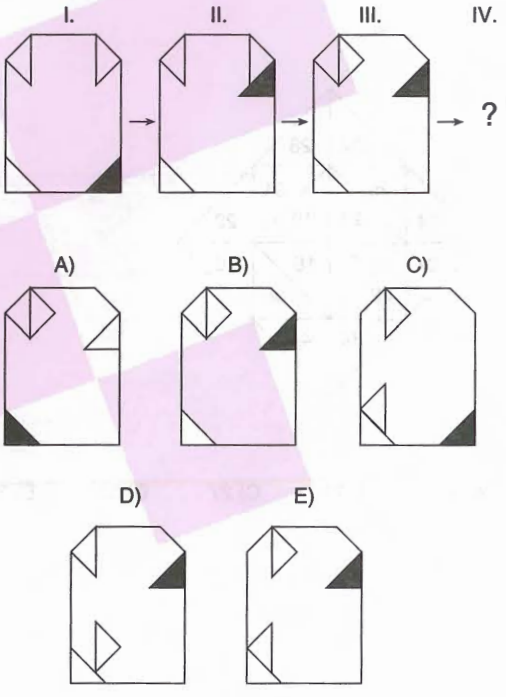


Yukarıdakilerden hangisi diğerlerinden farklıdır?

Which of the given figures above is different?

A) I B) II C) III D) IV E) V

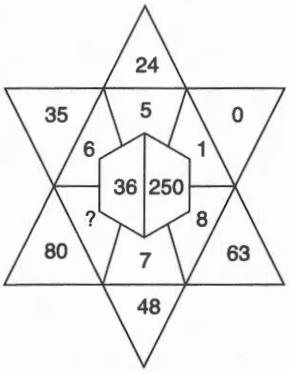
38.



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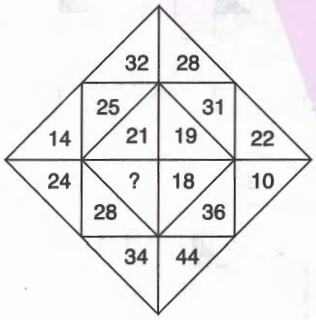
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39.



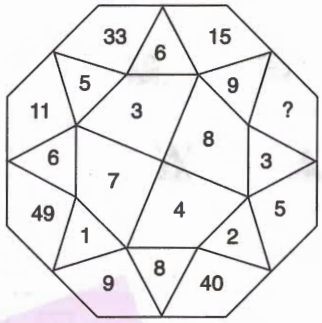
A) 2 B) 3 C) 4 D) 9 E) 11

40.



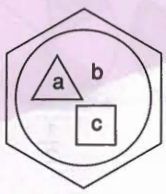
A) 21 B) 23 C) 27 D) 30 E) 32

41.

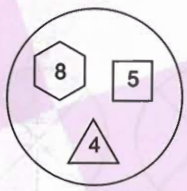


A) 12 B) 26 C) 47 D) 78 E) 96

42.

I. 

$\Rightarrow \frac{3a+b+c^2}{2}$

II. 

$\Rightarrow 41$

III. 

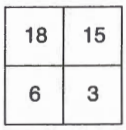
$\Rightarrow ?$

A) 36 B) 64 C) 78 D) 121 E) 144

43.

I. 

$\Rightarrow 1 + 3 + 5 + 6 = 15$

II. 

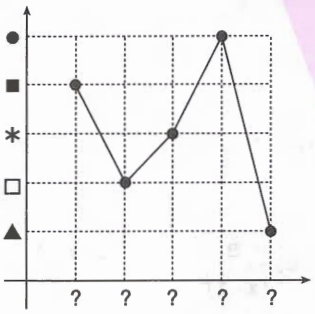
$\Rightarrow 1 + 2 + 6 + 5 = 14$

III. 

$\Rightarrow ?$

A) 18 B) 20 C) 24 D) 27 E) 32

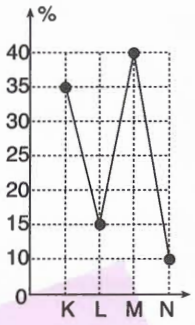
44.

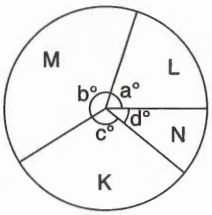


K → ●
L → ∗
M → ▲
N → □
P → ■

A) N L K M P
B) N K P M L
C) P N L K M
D) N P L M K
E) K L M N P

45.





a° = ?, b° = ?, c° = ?, d° = ?

	a°	b°	c°	d°
A)	90	126	108	36
B)	72	126	108	54
C)	72	108	126	54
D)	54	144	108	54
E)	54	144	126	36

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46. $5 + 10 + 15 + \ldots\ldots + 95 = ?$

A) 1250 B) 1050 C) 950 D) 800 E) 750

47. $-27 - 26 - 25 - \ldots - 2 - 1 + 1 + 2 + 3 + \ldots + 29 = ?$

A) 2 B) 28 C) 29 D) 56 E) 57

48. $\dfrac{(2n+2)!}{(2n-1)!\cdot 2n} = ?$

A) $2(n+1)(2n+1)$ B) $\dfrac{1}{2(n+1)(2n+1)}$ C) $\dfrac{n+1}{2n-1}$ D) $(2n+1)(2n-1)$ E) $\dfrac{1}{(2n+1)(2n-1)}$

49. $\log_5 100 + \log_5 \dfrac{1}{4} = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

50. $(555)_6 - (444)_5 = (x)_4 \Rightarrow x = ?$

A) 1213 B) 1123 C) 2113 D) 1113 E) 1223

51. $f(x) = \dfrac{2x-1}{x+1} \Rightarrow f'(x) = ?$

A) $\dfrac{3}{(x+1)}$ B) $\dfrac{3}{(x+1)^2}$ C) $\dfrac{x+1}{9}$ D) $\dfrac{3}{(2x+1)^2}$ E) $\dfrac{x}{(x+1)^2}$

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52. $a, b \in R$

$\frac{ax+10}{5} = 3x - b \Rightarrow a + b = ?$

A) -15 B) -13 C) -2 D) 13 E) 15

53. $|x-3| < 2 \Rightarrow |x-5| + |x-1| = ?$

A) $2x-6$ B) -4 C) 4 D) $-2x+4$ E) 6

54. $\lim_{x \to \infty} \left(\frac{7 + 11^{\frac{1}{x}}}{5 - 9^{\frac{1}{x}}} \right) = ?$

A) -1 B) 0 C) 1 D) 2 E) 3

55. $(202)_4 + (222)_3 = (1a4)_7 \Rightarrow a = ?$

A) 4 B) 3 C) 2 D) 1 E) 0

56. $a = \frac{2}{3}$ $b = \frac{5}{6}$ $c = \frac{4}{7}$ $\Rightarrow ? < ? < ?$

A) $b < a < c$ B) $b < c < a$ C) $c < a < b$ D) $a < c < b$ E) $c < b < a$

57. $\frac{1}{15} + \frac{1}{17} + \frac{1}{19} + \frac{1}{21} + \frac{1}{23} = a$

$\Rightarrow \frac{16}{15} + \frac{18}{17} + \frac{20}{19} + \frac{22}{21} + \frac{24}{23} = ?$

A) $100 + a$ B) $24a$ C) $6 + a$ D) $a + 5$ E) $5a$

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58. $\frac{x}{y}=3 \Rightarrow \frac{2xy}{x^2+y^2}=?$

A) $\frac{2}{3}$ B) $\frac{3}{4}$ C) $\frac{4}{5}$ D) $\frac{3}{5}$ E) $\frac{2}{5}$

59. $\frac{a-1}{2}=\frac{b+2}{3}=\frac{c-3}{4}$ $3a+2b-c=12 \Rightarrow a=?$

A) 2 B) 4 C) 5 D) 8 E) 9

60. $\frac{x^2-4a^2}{ax+2a^2}:\frac{2a-x}{2a}=?$

A) -2 B) 2 C) x D) a E) $\frac{x}{a}$

61. $\frac{ab-b}{b}:\frac{b-ab}{c}=?$

A) $-\frac{a}{b}$ B) $-\frac{c}{a}$ C) $-\frac{c}{b}$ D) $\frac{c}{a}$ E) $\frac{c}{b}$

62. $\frac{n(A\cap B)}{3}=\frac{n(B-A)}{4}=\frac{n(A\cup B)}{10}$

$n(B)-n(A-B)=12 \Rightarrow n(A\cap B)=?$

A) 6 B) 9 C) 12 D) 15 E) 18

63. $\frac{\sqrt[3]{2^x+2^x+2^x+2^x}}{\sqrt{2^x+2^x+2^x+2^x}}=\frac{1}{2} \Rightarrow x=?$

A) 1 B) 2 C) 4 D) 8 E) 12

64. $a-\frac{2}{a}=5 \Rightarrow \left(a+\frac{2}{a}\right)^2=?$

A) 25 B) 29 C) 33 D) 46 E) 52

65. $x\cdot y\cdot z=3$

$\Rightarrow A=\left(x\cdot z+\frac{1}{y}\right)\cdot\left(x\cdot y+\frac{2}{z}\right)\cdot\left(y\cdot z+\frac{3}{x}\right)=?$

A) 10 B) 20 C) 40 D) 60 E) 120

66. $\sqrt[3]{5^{x-2}-\frac{28}{5^{2-x}}}=-75 \Rightarrow x=?$

A) 8 B) 7 C) 6 D) 5 E) 4

67. $(0{,}5)^2\cdot 8\sqrt{2}=2^{n-1} \Rightarrow n=?$

A) $\frac{5}{2}$ B) $\frac{1}{2}$ C) $-\frac{1}{2}$ D) $-\frac{5}{2}$ E) -2

68. $x=5+\cfrac{6}{5+\cfrac{6}{5+\cfrac{6}{5+\ldots}}} \Rightarrow x=?$

A) -2 B) 2 C) 3 D) 5 E) 6

69. $f(x)=5^x \Rightarrow \frac{f(m)}{f(n)}=?$

A) $f(m)-f(n)$ B) $f(m\cdot n)$ C) $f\left(\frac{m}{n}\right)$ D) $f(m-n)$ E) $f(m+n)$

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70. $f(3x-1) = 5x-3 \Rightarrow f^{-1}(x) = ?$

A) $\frac{4x-3}{3}$ B) $\frac{3x-4}{3}$ C) $2x$

D) $\frac{3x+4}{5}$ E) $\frac{x-4}{5}$

71. $P(x, y) = x^3y^4 - 2xy^3 + 4y^2 + 5$
$\Rightarrow P(1, 2) = ?$

A) 0 B) 1 C) 16 D) 21 E) 53

72.
$$\left.\begin{array}{l} A(x) = x^3 - 2x \\ B(x) = x^2 + 4x - 1 \\ C(x) = 2x \end{array}\right\} \Rightarrow A(x) - C(x) \cdot B(x) = ?$$

A) $-x^3 - 8x^2$ B) $-x^3 - 4x$ C) $-x^3 - 4x^2$

D) $3x^3 - 8x^2 - 4x$ E) $x^3 - 1$

73. $0 < x < \frac{\pi}{2}$ $\sin x = \frac{4}{5} \Rightarrow \sin\left(\frac{3\pi}{2} + x\right) = ?$

A) $-\frac{3}{5}$ B) $\frac{3}{5}$ C) $-\frac{3}{4}$ D) $-\frac{4}{5}$ E) $-\frac{2}{3}$

74. $\tan x + \cot x = 5 \Rightarrow \tan^2 x + \cot^2 x = ?$

A) 19 B) 22 C) 23 D) 60 E) 33

75. $\frac{\tan x}{\tan x + \cot x} = ?$

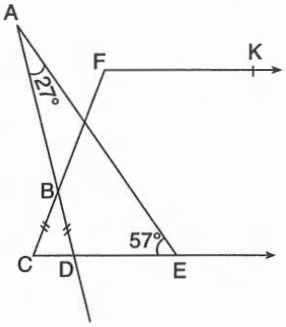
A) $2\sin x$ B) $\sin^2 x$ C) 0

D) $-\sin x$ E) $\cos x$

76. $[x-[y-(z+2)]]-[x+[z-(x-1)]]+y-1 = ?$

A) 1 B) 2 C) z D) y E) x

77.



$m(\widehat{EAD}) = 27°$

$m(\widehat{AEC}) = 57°$

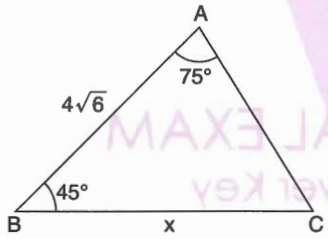
$[FK \parallel [CE$

$|CB| = |BD|$

$\Rightarrow m(\widehat{CFK}) = ?$

A) 92° B) 96° C) 104° D) 106° E) 112°

78.



$m(\widehat{ABC}) = 45°$

$m(\widehat{BAC}) = 75°$

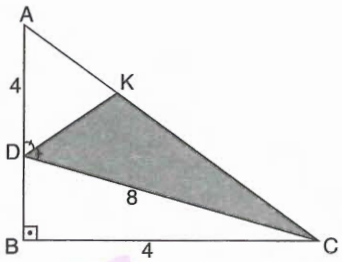
$|AB| = 4\sqrt{6}$ br

$|BC| = x$

$\Rightarrow x = ?$

A) $4\sqrt{3}$ B) 8 C) $4 + 4\sqrt{3}$ D) $8 + 4\sqrt{3}$ E) $8\sqrt{3}$

79.



$m(\widehat{ABC}) = 90°$

$[DK]$ açıortay *(bisector)*

$|AD| = 4$ br

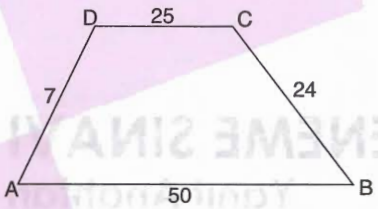
$|DC| = 8$ br

$|BC| = 4$ br

$\Rightarrow A(DKC) = ?$

A) 2 B) $\frac{7}{8}$ C) $\frac{15}{4}$ D) $\frac{16}{3}$ E) $\frac{9}{11}$

80.



ABCD yamuk *(trapezoid)*

$|AB| = 50$ br

$|BC| = 24$ br

$|CD| = 25$ br

$|AD| = 7$ br

$\Rightarrow A(ABCD) = ?$

A) 216 B) 232 C) 240 D) 252 E) 256

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DENEME SINAVI 11 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
D	D	D	C	D	B	E	C	D	C	D	C	D	B	D	A	D	C	A	C

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
C	B	B	D	E	D	D	D	D	A	C	E	B	C	B	E	D	E	D	D

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
E	E	D	C	E	C	E	A	B	B	B	D	C	D	D	C	D	D	C	A

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C	B	C	C	C	A	A	E	D	D	D	A	A	C	B	E	B	C	D	D

DENEME SINAVI 12
TRIAL EXAM 12

1.

▲■○
▲○■
■▲○
○■▲

?

A) 125 B) 763 C) 894
152 736 849
512 673 948
251 367 489
D) 295 E) 741
259 714
592 147
992 474

2.

PAT 729
LOS 145
DER 927
TAP 360
SOL 541

⇒ DER = ?

A) 729 B) 145 C) 927
D) 360 E) 541

3.

ASTAR 52931
TARAK 63539
KATAR 31539
RASAT 53936
TERAS 93135

⇒ RASAT = ?

A) 52931 B) 63539 C) 31539
D) 53936 E) 93135

4.

● + ▲ = 13
● + 5 = 9
▲ + ■ = 16

⇒ ■ = ?

A) 4 B) 5 C) 6 D) 7 E) 9

5.

$$\begin{array}{r} L8 \\ -\ KL \\ \hline KL \end{array} \qquad \begin{array}{r} K \\ +\ L \\ \hline 13 \end{array}$$

⇒ K = ?

A) 3 B) 4 C) 5 D) 6 E) 7

6.

$$\begin{array}{r} LMK \\ KLM \\ +\ MKL \\ \hline 1776 \end{array} \qquad \begin{array}{r} M \\ -\ K \\ \hline 5 \end{array} \qquad \begin{array}{r} L \\ -\ K \\ \hline 2 \end{array}$$

⇒ L = ?

A) 2 B) 3 C) 5 D) 7 E) 8

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7.

$$\begin{array}{r} \cdot\,\cdot\,\cdot \\ \times\ \ 57 \\ \hline \cdot\,\cdot\,\cdot\,\cdot \\ +\ 2180 \\ \hline \cdot\,K\cdot\,\cdot\,\cdot \end{array} \quad \Rightarrow K = ?$$

A) 2 B) 4 C) 5 D) 7 E) 8

8.

$$\begin{array}{r|l} KL8 & KL \\ \hline & X \\ - & \\ \hline Y & \end{array} \quad \Rightarrow X + Y = ?$$

A) 6 B) 8 C) 9 D) 14 E) 18

9.

$$\begin{array}{ccc} K & M & L \\ +\ M & +\ L & +\ K \\ \hline 16 & 11 & 13 \end{array} \quad \Rightarrow M = ?$$

A) 3 B) 4 C) 5 D) 7 E) 9

10. I. $2 \clubsuit 4 = 32$

II. $3 \clubsuit 2 = 12$

III. $4 \clubsuit 3 = 36$

IV. $6 \clubsuit 5 = ?$

Yukarıdaki ilk üç eşitlik ♣ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ♣ is unchanged. What does the question mark stand for in the fourth equation?

A) 22 B) 30 C) 60 D) 150 E) 180

11. I. $4 \blacksquare 7 = 21$

II. $8 \blacksquare 9 = 63$

III. $9 \blacksquare 3 = 24$

IV. $3 \blacksquare 9 = ?$

Yukarıdaki ilk üç eşitlik ■ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ■ is unchanged. What does the question mark stand for in the fourth equation?

A) 12 B) 15 C) 18 D) 27 E) 54

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12. I. $27 * 18 = 15$

II. $36 * 24 = 20$

III. $18 * 30 = 16$

IV. $29 * 52 = ?$

Yukarıdaki ilk üç eşitlik * işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

*In the equations above, the function of * is unchanged. What does the question mark stand for in the fourth equation?*

A) 18 B) 22 C) 24 D) 27 E) 30

13. I. $(9 \bullet 6) \blacktriangle (8 \bullet 5) = 14$

II. $(8 \blacksquare 3) \bullet (2 \blacksquare 1) = 33$

III. $(9 \blacktriangle 2) \bullet (6 \blacktriangle 3) = 21$

IV. $(8 \blacktriangle 5) \blacksquare (4 \bullet 5) = ?$

A) 14 B) 20 C) 23 D) 49 E) 60

14.

+	a	b	c
a	b + c		
b		a + c + 1	
c			3a + 1

$\Rightarrow b - 2a + c = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre b – 2a + c kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of b – 2a + c?

A) 3 B) 4 C) 5 D) 6 E) 7

15.

x	a	b	c
a		c	
b			16 · a
c	4 · b		

$\Rightarrow a + b + c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a+b+c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a+b+c?

A) 6 B) 8 C) 10 D) 11 E) 14

16.

+	a	b	c
a		15	
b			11
c			

x	a	b	c
a			45
b			
c			

$\Rightarrow a = ?$

Yukarıdaki çarpma ve toplama tablolarında a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a kaçtır?

In the multiplication and summation tables above, the letters a, b ve c each stand for a specific number. What is the value of a?

A) 5 B) 6 C) 7 D) 8 E) 9

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17.

▲	8	5	14
7	5	4	K
13	7	L	9
4	M	3	6

K = ?
L = ?
M = ?

Yukarıdaki tablo ▲ işlemine göre düzenlenmiştir. Buna göre, K, L ve M'nin yerine hangi sayılar gelmelidir?

The table above is organized according to ▲ operation. Which numbers do K, L and M stand for?

	K	L	M
A)	6	7	4
B)	3	5	8
C)	7	6	4
D)	8	5	3
E)	4	5	7

18.

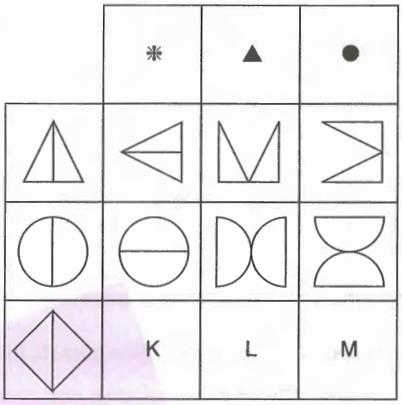
	+	+	+	
+ →	M	M + 2	K	= 20
+ →	K	M	K−1	= 20
+ →	K−1	M + 3	M	= 20
	=	=	=	
	20	20	20	

Yukarıdaki tabloda her satır ve sütun toplamı 20 olduğuna göre, K+M kaçtır?

Summation of each row and coloumn in the table above is 20. What is the rate of K+M?

A) 9 B) 10 C) 11 D) 12 E) 13

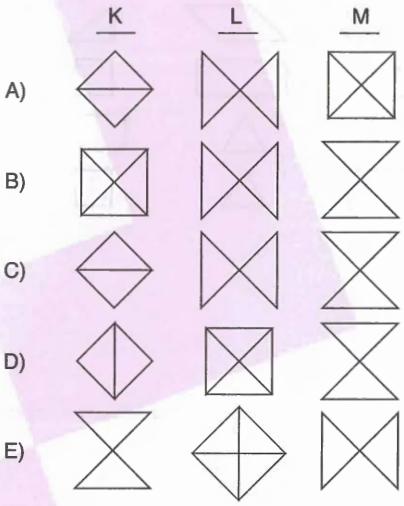
19.



K = ? L = ? M = ?

Yukarıdaki tabloda K, L ve M nin yerine hangi şekiller gelmelidir?

Which figures do K, L and M stand for in the table above?



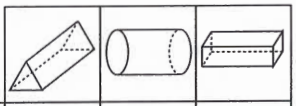
20.

4198	8419	1849	9148
2793	3279	7329	?

A) 2973 B) 9273 C) 3729
D) 9723 E) 7293

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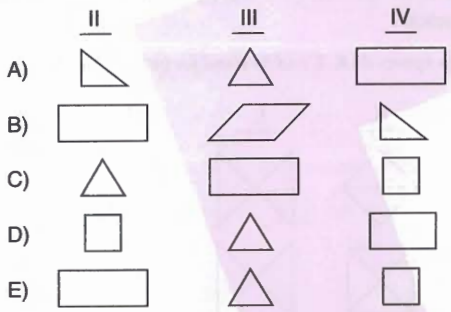
21.



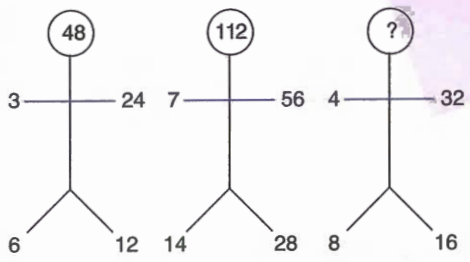
I	0	2	0	I = ◯
II	3	1	4	II = ?
III	2	0	0	III = ?
IV	0	0	2	IV = ?

Yukarıdaki tabloda I, ◯'yi gösterdiğine göre, II, III ve IV hangi şekilleri göstermektedir?

I stand for ◯ in the table above. Which figures do II, III and IV stand for?



22.



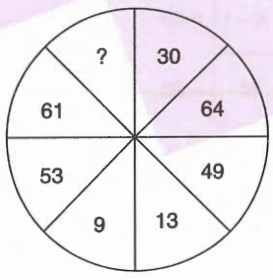
A) 24 B) 36 C) 56 D) 64 E) 72

23.

1	4	9	61	52	63	94	?

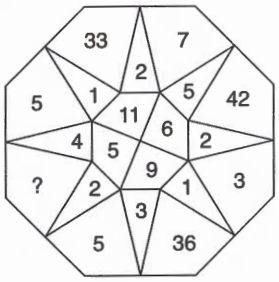
A) 46 B) 58 C) 64 D) 81 E) 103

24.



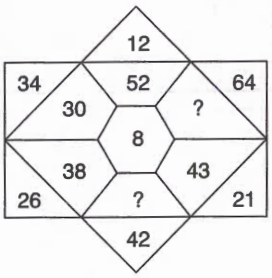
A) 4 B) 10 C) 16 D) 24 E) 38

25.



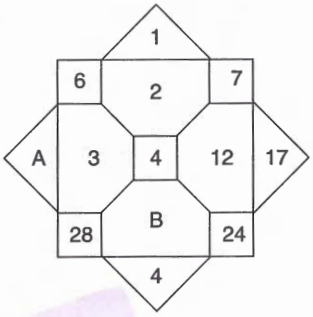
A) 25 B) 32 C) 24 D) 30 E) 34

26.



A) 22,0 B) 2,25 C) 26,2 D) 26,0 E) 28,16

27.



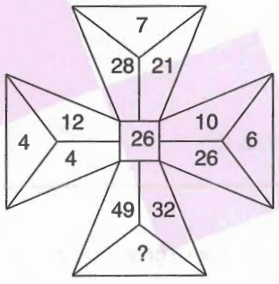
A= ?
B =?

Yukarıdaki şekilde A ve B'nin yerine hangi sayılar gelmelidir?

What do the A and B stand for in the figure above?

	A	B
A)	22	2
B)	24	8
C)	22	8
D)	34	2
E)	34	16

28.



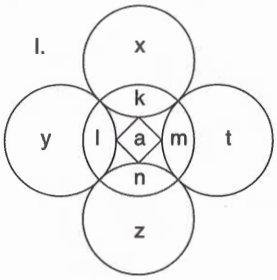
Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 3 B) 5 C) 8 D) 9 E) 11

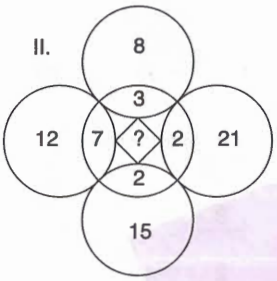
29.

I.



$$\Rightarrow a = \frac{x+y+z+t}{k+l+m+n}$$

II.



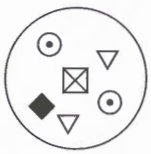
I. şekilde belirlenen ilişkiye göre, II. şekildeki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Given the relationship established in I, which number do stand for in question mark?

A) 2 B) 3 C) 4 D) 5 E) 6

30.

I.



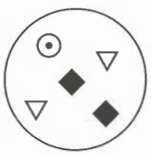
$\Rightarrow$ 1, 2, 1, 2

III.



$\Rightarrow$?

II.



$\Rightarrow$ 0, 1, 2, 2

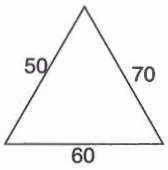
I. ve II. satırlarda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III, in accordance with the relationship established in I and II?

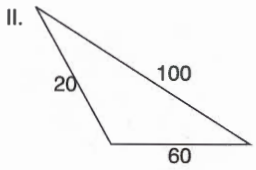
A) 3, 2, 1, 1 B) 3, 1, 2, 1 C) 2, 1, 3, 1
D) 2, 1, 1, 3 E) 1, 3, 1, 2

31.

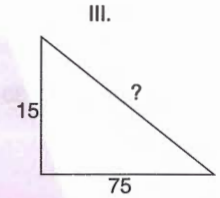
I.



II.



III.

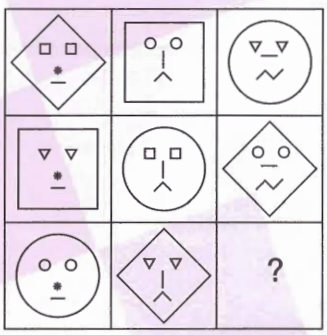


I. ve II. satırlarda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III, in accordance with the relationship established in I and II?

A) 50 B) 60 C) 75 D) 90 E) 115

32.



A) 

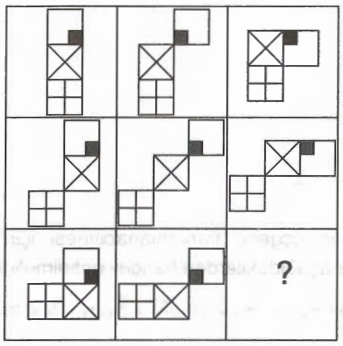
B) 

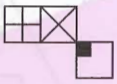
C) 

D) 

E) 

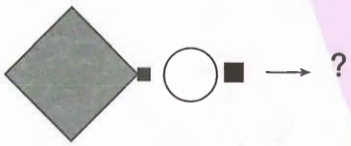
33.

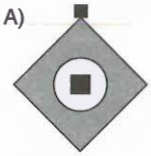
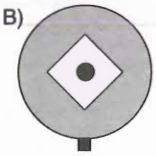
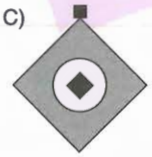
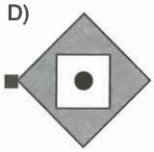
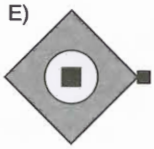


A) 
B) 
C) 
D) 
E) 

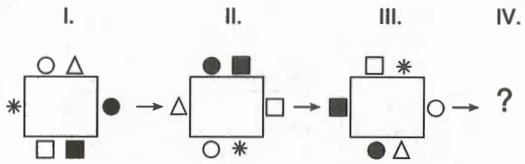
34.

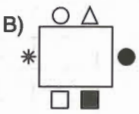
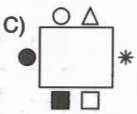
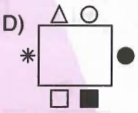
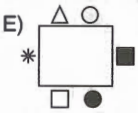
I. 

II. 

A) 
B) 
C) 
D) 
E) 

35.

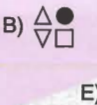


A) 
B) 
C) 
D) 
E) 

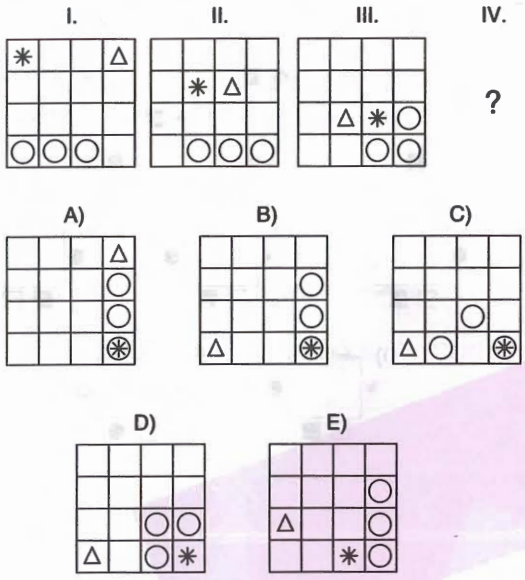
36.



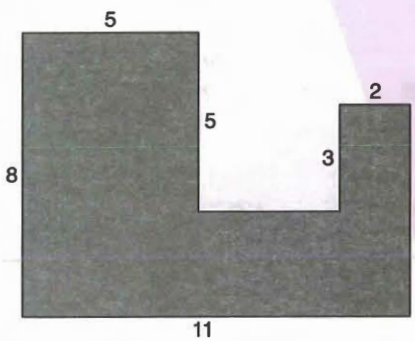


A) 
B) 
C) 
D) 
E) 

37.



38.

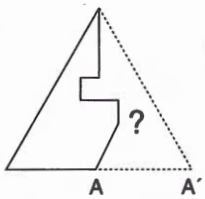


Taralı bölgenin alanı nedir?

What is the area of shaded field?

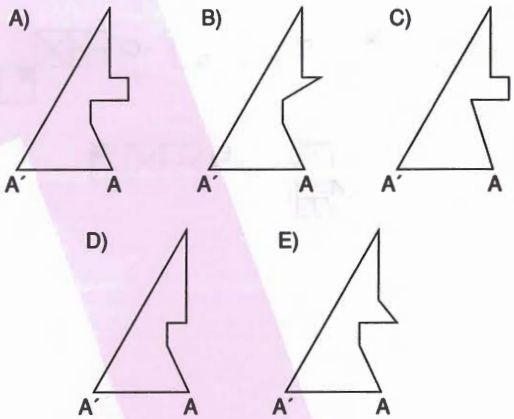
A) 48 B) 52 C) 58 D) 64 E) 72

39.

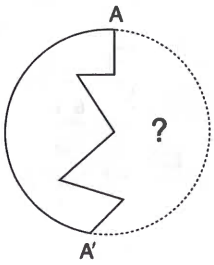


Yukarıdaki şeklin üçgene tamamlanabilmesi için soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

Which of the following will make the above figure into a triangle?



40.



Yukarıdaki şeklin daireye tamamlanabilmesi için soru işaretinin yerine aşağıdakilerden hangisi getirilmelidir?

Which of the following will make the above figure into a circle?

A)

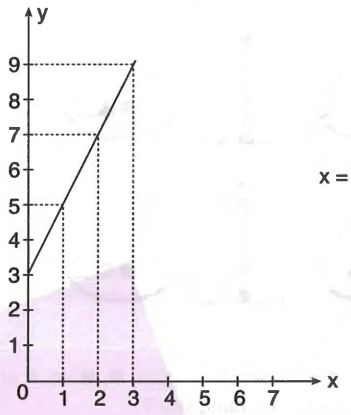

B)


C)


D)


E)


41.



$x = 39 \Rightarrow y = ?$

Yukarıdaki çizgi grafikte, x'in değeri 39 olunca y'nin değeri kaçtır?

What is the valve of y, if the value of x is 39 in the line graph above?

A) 78 B) 81 C) 84 D) 92 E) 106

goo.gl/oouUoo Yös Lovers L

42.

I. 

II. 

I. ve II. terazi dengede olduğuna göre, ■, ● ve ▲ arasındaki ilişki aşağıdakilerden hangisidir?

In accordance with I and II, what is the relation between n, l and s given the followings?

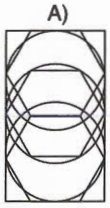
A) ▲ > ● > ■ B) ■ > ● > ▲

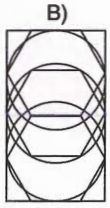
C) ■ > ● = ▲ D) ■ > ▲ > ●

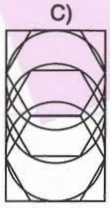
E) ● > ■ > ▲

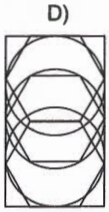
43. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which of the followings is different?

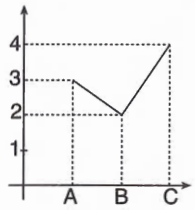
A) 

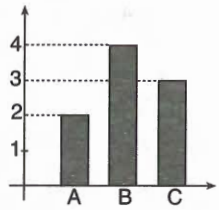
B) 

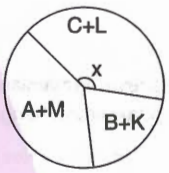
C) 

D) 

E) 

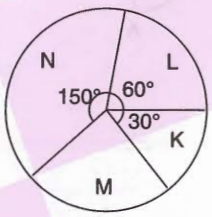
44. 

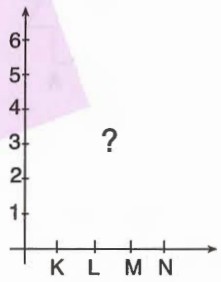


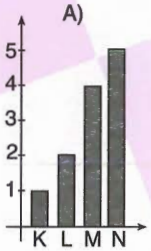


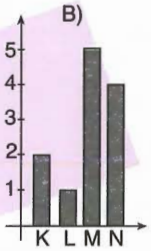
x° = ?

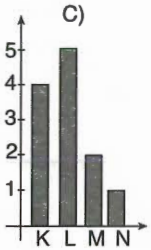
A) 80 B) 100 C) 120 D) 160 E) 170

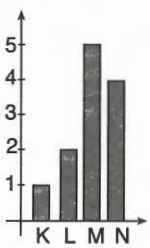
45. 

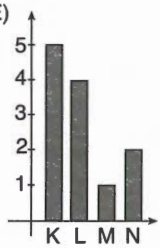
⇒ 

A) 

B) 

C) 

D) 

E) 

46. $\dfrac{\left(\frac{1}{5}+1\right)-\left(\frac{1}{5}-1\right)}{1-\frac{3}{7}} = ?$

A) 7 B) $\frac{7}{2}$ C) 1 D) $\frac{1}{5}$ E) 0

47. $\dfrac{x^3-1}{x^3+1} : \dfrac{x^2+x+1}{x^2-x+1} = ?$

A) $x-1$ B) $x+1$ C) $\frac{x+1}{x-1}$ D) $\frac{x-1}{x+1}$ E) 1

48. $\frac{a}{b}=\frac{c}{d}=\frac{e}{f}=\frac{1}{2} \Rightarrow \dfrac{a^2+c^2+e^2}{b^2+d^2+f^2} = ?$

A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $\frac{2}{3}$ D) $\frac{3}{4}$ E) $\frac{3}{2}$

49. $\lim\limits_{x\to 1}[f(x)+x+1]=5 \Rightarrow \lim\limits_{x\to 2} f(x-1) = ?$

A) -2 B) -1 C) 1 D) 2 E) 3

50. $\lim\limits_{x\to 1}\left(\dfrac{\sqrt{2x}-1}{\sqrt{2x}-2}\right) = ?$

A) $\sqrt{2}$ B) $\frac{\sqrt{2}}{2}$ C) -1 D) $-\frac{\sqrt{2}}{2}$ E) $-\sqrt{2}$

51. $\int (x^4-x^3-1)dx = ?$

A) x^5-x^4-x+c B) $\frac{x^5}{4}-\frac{x^4}{3}-x+c$ C) $\frac{x^3}{3}-\frac{x^2}{2}-x+c$ D) $\frac{x^5}{5}-\frac{x^4}{4}-x+c$ E) $\frac{x^5}{5}-\frac{x^4}{4}-1$

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52. $\int_{-1}^{1} (x^2+1)dx = ?$

A) 3 B) $\frac{8}{3}$ C) 2 D) $\frac{4}{3}$ E) 0

53. $f(x) = x^3 + \frac{6}{x^2} \Rightarrow f'(-1) = ?$

A) -9 B) -6 C) 12 D) 15 E) 18

54. $f(x) = x^3 + 3^x \Rightarrow f'(x) = ?$

A) $3x^2 + x \cdot 3^{x-1}$
B) $x^3 \cdot \ln x + 3^x \cdot \ln 3$
C) $3x^2 + 3^x \cdot \ln 3$
D) $3x^2 + \ln 3$
E) $3x^2 + 3^x$

55. $a < 0 < b$
$\Rightarrow \left|4a - \left|a - \left|2b\right|\right|\right| = ?$

A) $a + b$ B) $3a - b$ C) $2b - 5a$
D) $b - 3a$ E) $b - a$

56. $\frac{2\sqrt{5}}{\sqrt{2}} + \frac{2\sqrt{2}}{\sqrt{5}} = ?$

A) $\frac{5\sqrt{10}}{2}$ B) $\frac{7\sqrt{10}}{5}$ C) $\frac{9\sqrt{10}}{4}$
D) $\frac{13\sqrt{10}}{4}$ E) $\frac{14\sqrt{10}}{2}$

57. $\frac{2^{3^2}}{(-2^2)^3} = ?$

A) -8 B) -4 C) -1 D) 1 E) 8

58. $\frac{(3-0,5)\cdot 0,2}{0,25+1}+\frac{2}{3}:(0,2-1)=?$

A) $-\frac{1}{15}$ B) $-\frac{13}{30}$ C) $\frac{1}{15}$ D) $\frac{3}{13}$ E) $\frac{4}{15}$

59. $x+\frac{1}{x}=3 \Rightarrow \sqrt{x^2+\frac{1}{x^2}+9}=?$

A) 8 B) 7 C) 6 D) 5 E) 4

60. $\frac{-a^2\cdot(-a)^{-3}\cdot(-a)^{-2}}{-a^{-6}\cdot a^{-1}}=?$

A) a B) a^{-4} C) $-a$ D) $-a^4$ E) $-a^{-4}$

61. $\sqrt{\sqrt[3]{\sqrt[5]{2^{42}}}}=2^x \Rightarrow x=?$

A) 2 B) 4 C) $\frac{7}{5}$ D) $\frac{7}{3}$ E) $\frac{21}{4}$

62. $-\frac{\sqrt[4]{3-x}+2x}{\sqrt[4]{x-3}+1}\in R \Rightarrow \frac{\sqrt[4]{3-x}+2x}{\sqrt[4]{x-3}+1}=?$

A) 2 B) 4 C) 6 D) 8 E) 10

63. $\frac{1}{4^a}-1=x$

$\frac{1}{2^a}+1=y$

x ile y arasındaki ilişki aşağıdakilerden hangisidir?

What is the relation between x and y?

A) $x=y^2-2y$ B) $y=x^2-2$ C) $x=y^2+2$ D) $x=y^2-y$ E) $x=y^2+2$

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64. $\frac{x-y}{2} = \frac{y-z}{3}$ $\quad x - z = 25$

$\Rightarrow x - 2y + z = ?$

A) 10 B) 5 C) 1 D) -5 E) -10

65. $\left.\begin{matrix} 4x + 2y = 5 \\ 2x + y = 3 \end{matrix}\right\} \Rightarrow$ S.S. = ?

A) $\{1, -2\}$ B) $\left\{1, \frac{1}{2}\right\}$ C) $\{1, 2\}$

D) R E) Ø

66. $2xy + y - 3x + 5 = 0$

$f(x) = y$

$\Rightarrow f(1) = ?$

A) $-\frac{2}{3}$ B) $-\frac{1}{3}$ C) 1 D) $\frac{1}{3}$ E) $\frac{2}{3}$

67. $2x^2 - 5x + 1 = 0$

$\Rightarrow$ S.S. = ?

A) $\frac{5 \pm \sqrt{17}}{4}$ B) $\frac{3 \pm \sqrt{13}}{2}$ C) $\frac{5 \pm \sqrt{17}}{2}$

D) $\frac{3 \pm \sqrt{13}}{4}$ E) ± 1

68. $|2x + y - 5| + |3x - 2y - 4| = 0$

$\Rightarrow x = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

69. $\frac{\sin 150° \cdot \tan 225° \cdot \cos 60°}{\cot 210° \cdot \sin 420°} = ?$

A) $-\frac{\sqrt{3}}{2}$ B) $-\frac{1}{6}$ C) $\frac{3}{2}$

D) $\frac{\sqrt{3}}{6}$ E) $\frac{1}{6}$

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70. $\left(\frac{\sin x}{\cos x}+\frac{\cos x}{\sin x}\right)\cdot(\sec x)^{-1} = ?$

A) cosx B) secx C) cosecx

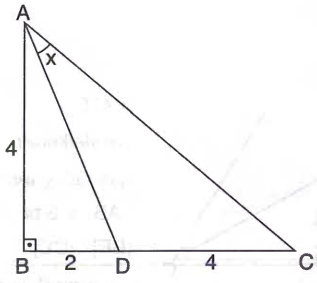
D) tanx E) $\frac{1}{\text{cosec}x}$

71. $\sin\frac{\pi}{24}\cdot\cos\frac{\pi}{24}\cdot\cos\frac{\pi}{12} = ?$

A) $-\frac{\sqrt{3}}{8}$ B) $-\frac{\sqrt{3}}{4}$ C) $\frac{1}{8}$

D) $\frac{\sqrt{3}}{8}$ E) $\frac{\sqrt{3}}{4}$

72.



$[AB] \perp [BC]$
$|AB| = 4$ br
$|BD| = 2$ br
$|CD| = 4$ br
$\Rightarrow \tan x = ?$

A) $\frac{1}{7}$ B) $\frac{2}{7}$ C) $\frac{3}{7}$ D) $\frac{4}{7}$ E) $\frac{5}{7}$

73. $\log_3[\log_2(2x-1)] = 1$
$\Rightarrow x = ?$

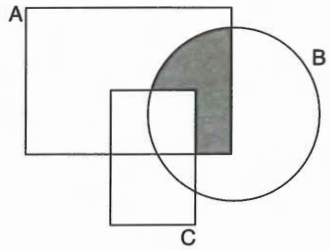
A) $\frac{1}{3}$ B) $\frac{2}{3}$ C) $\frac{7}{2}$ D) $\frac{9}{2}$ E) $\frac{13}{2}$

74. $\left.\begin{array}{l}\log a - \log b = 2\\ a + b = 303\end{array}\right\} \Rightarrow a = ?$

A) 1 B) 3 C) 100 D) 200 E) 300

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75.



Şekildeki taralı alan aşağıdakilerin hangisinde doğru gösterilmiştir?

Which one corresponds to the shaded area in the given figure?

A) $[(A \cup B) \cap C]$

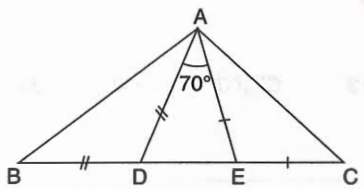
B) $A \setminus (B \cup C)$

C) $(A \cap B) \setminus C$

D) $(B \cap C) \setminus A$

E) $(A \cap B) \cap C$

76.



$|BD| = |AD|$

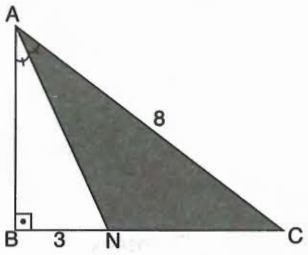
$|AE| = |EC|$

$m(\widehat{DAE}) = 70°$

$\Rightarrow m(\widehat{BAC}) = ?$

A) 85 B) 105 C) 125 D) 135 E) 145

77.



$[AB] \perp [BC]$

$m(\widehat{BAN}) = m(\widehat{NAC})$

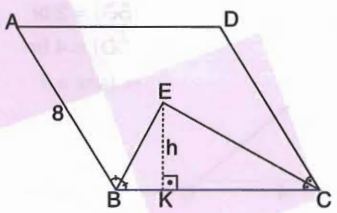
$|BN| = 3$ br

$|AC| = 8$ br

$\Rightarrow A(ANC) = ?$

A) 4 B) 8 C) 12 D) 18 E) 24

78.



ABCD paralelkenar *(paralellogram)*,

$|AB| = 8$ br

[BE] , [CE] açıortay *(bisector)*

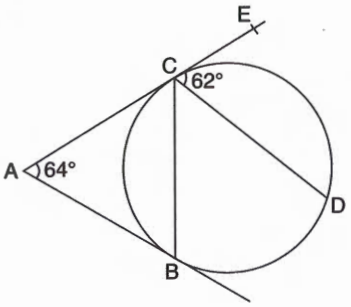
$A(ABCD) = 80$ br^2

$|EK| = h$

$\Rightarrow h = ?$

A) 4 B) 5 C) 6 D) 8 E) 10

79.



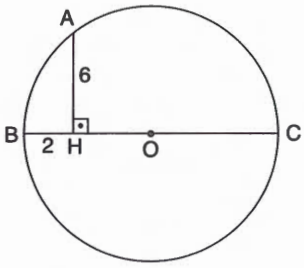
$m(\widehat{ECD}) = 62°$

$m(\widehat{CAB}) = 64°$

$\Rightarrow m(\widehat{BCD}) = ?$

A) 65 B) 60 C) 55 D) 50 E) 45

80.



O merkez *(center)*

$[AH] \perp [BC]$

$|AH| = 6$ br

$|BH| = 2$ br

$\Rightarrow |OC| = ?$

A) 5 B) 8 C) 10 D) 15 E) 20

DENEME SINAVI 12 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	D	E	D	B	C	B	E	D	D	C	D	C	C	E	E	C	E	C	D

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
E	D	A	C	D	A	C	D	C	A	D	B	A	A	B	E	B	D	A	E

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
B	B	E	D	A	B	D	B	E	D	D	B	D	C	C	B	A	B	E	D

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C	C	A	D	E	A	A	E	E	C	C	D	D	E	C	C	C	B	B	C

DENEME SINAVI 13
TRIAL EXAM 13

1.

19234	★▲■▼●
43219	▲★▼■●
23941	●▼▲★■
14932	■★▲●▼
32491	●■▼★▲

23941 = ?

A) ★▲■▼● B) ▲★▼■● C) ●▼▲★■ D) ■★▲●▼ E) ●■▼★▲

2.

RAZ	406
SİM	317
TEK	925
ZAR	713
KET	529

SİM = ?

A) 406 B) 317 C) 925 D) 713 E) 529

3.

MASAL	46387
SALAM	56467
KEMER	42321
RESİM	32124
MESİR	76384

RESİM = ?

A) 46387 B) 56467 C) 42321 D) 32124 E) 76384

4.

34521	09867
45312	68709
54123	07896
31452	70689
52134	67098

31452 = ?

A) 09867 B) 68709 C) 07896 D) 70689 E) 67098

5.

$$\begin{array}{r} KLMN \\ +\ \ LNM \\ \hline 107RP \end{array} \qquad \Rightarrow K + L = ?$$

A) 11 B) 14 C) 16 D) 17 E) 18

6.

$$\begin{array}{r} KLML \\ +\ KMLM \\ \hline 7NNP \end{array} \qquad \Rightarrow K + (N - P) = ?$$

A) 1 B) 2 C) 3 D) 4 E) 5

7.

$$\begin{array}{r|l} 224 & KL \\ \hline - & M \\ \hline 0 & \end{array} \qquad \begin{array}{r|l} 392 & KL \\ \hline - & N \\ \hline 0 & \end{array} \qquad \begin{array}{r} KL \\ \times\ MN \\ \hline ? \end{array}$$

A) 2149 B) 2345 C) 2412 D) 2632 E) 2894

8.

$$\begin{array}{r} KLM \\ KLM \\ +\ KLM \\ \hline MMM \end{array} \qquad \Rightarrow M = ?$$

A) 3 B) 5 C) 6 D) 8 E) 9

9.

$$\begin{array}{r} K \\ -\ L \\ \hline 4 \end{array} \qquad \begin{array}{r} L \\ +\ M \\ \hline 12 \end{array} \qquad \begin{array}{r} M \\ -\ K \\ \hline 2 \end{array} \qquad M = ?$$

A) 5 B) 6 C) 7 D) 8 E) 9

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10. I. $2.a \blacktriangle b^3 = \frac{a+b}{3}$

II. $a \divideontimes b = a^2 - b^2$

III. $(12 \blacktriangle 27) \divideontimes (2 \blacktriangle 8) = ?$

Yukarıdaki iki eşitlik ▲ ve ⁜ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ▲ and ⁜ are unchanged. What is the solution of the third equation?

A) 2 B) 8 C) 12 D) 20 E) 21

11. I. $30 \bullet 4 = 19$

II. $22 \bullet 2 = 13$

III. $10 \bullet 10 = 15$

IV. $18 \bullet 1 = ?$

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 8 B) 10 C) 14 D) 20 E) 37

12. I. $18 \blacktriangle 18 = 6$

II. $14 \blacktriangle 11 = 5$

III. $42 \blacktriangle 39 = 9$

IV. $62 \blacktriangle 38 = ?$

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 4 B) 7 C) 8 D) 10 E) 11

13. I. $(6 \blacktriangle 5) \bullet (8 \blacktriangle 2) = 14$

II. $(9 \bullet 7) \blacktriangle (6 \bullet 1) = 10$

III. $(8 \blacktriangle 4) \bullet (9 \bullet 2) = ?$

Yukarıdaki iki eşitlik ▲ ve ● işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ▲ and ● are unchanged. What is the solution of the third equation?

A) 14 B) 25 C) 28 D) 34 E) 46

14.

+	a	b	c
a	$\frac{b}{3}$	14	
b			
c	20		

$\Rightarrow c = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of c?

A) 2 B) 8 C) 10 D) 12 E) 18

15.

x	a	b	c
a		64	2 · b
b			128
c			

$\Rightarrow a + b + c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a+b+c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a+b+c?

A) 12 B) 16 C) 18 D) 24 E) 28

16.

+	a	b	c
a			11
b			
c			

x	a	b	c
a		24	
b			20
c			

$\Rightarrow a \cdot b \cdot c = ?$

Yukarıdaki çarpma ve toplama tablolarında a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a · b · c kaçtır?

In the multiplication and summation tables above, the letters a, b ve c each stand for a specific number. What is the value of a · b · c?

A) 36 B) 48 C) 72 D) 96 E) 120

17.

	◇	⬡	△
⬠	18	22	K
⬡	24	L	22
□	M	20	14

$\Rightarrow K + L + M = ?$

Yukarıdaki tabloya göre, K+L+M kaçtır?

According to the given table above, what is the rate of K+L+M?

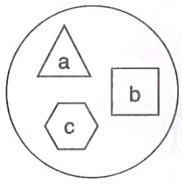
A) 36 B) 44 C) 52 D) 60 E) 78

18.

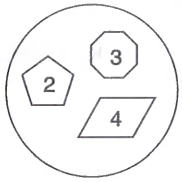
I.	II.	III.	IV.
97	112	115	121
113	116	122	?

A) 125 B) 130 C) 135 D) 127 E) 123

19.

I. 

$\Rightarrow 3 \cdot a + 4 \cdot b + 6 \cdot c$

II. 

$\Rightarrow ?$

I. satırda belirlenen ilişkiye göre, II. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes II, in accordance with the relationship established in I?

A) 38 B) 44 C) 50 D) 56 E) 62

20.

	I	II	III
	K		
		L	
			M

K = ?

L = ?

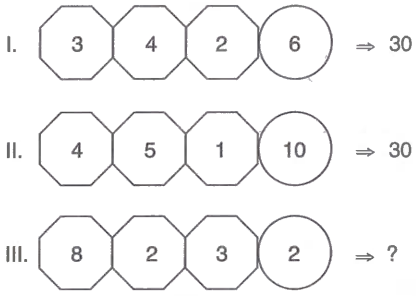
M = ?

Yukarıdaki tabloda K, L ve M nin yerine hangi şekiller gelmelidir?

Which figures do K, L and M stand for in the table above?

	K	L	M
A)			
B)			
C)			
D)			
E)			

21.

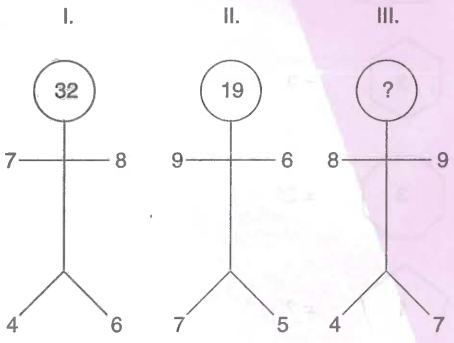


I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III. In accordance with the relationship established in I and II?

A) 26 B) 28 C) 32 D) 46 E) 50

22.



I. ve II. şekilde belirlenen ilişkiye göre, III. şekildeki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Which of the numbers below completes III, in acordance with the relationship established in I. and II. figure?

A) 30 B) 34 C) 38 D) 44 E) 52

23.

I.	II.	III.	IV.	V.
308	284	426	558	214
154	142	213	279	107
69	56	34	916	?

A) 11 B) 17 C) 24 D) 34 E) 46

24.

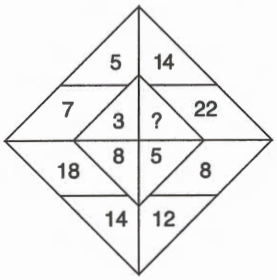
$\sqrt{3}$	2
4	15
17	288
A	B

⇒ A + B = ?

A) 79130 B) 82000 C) 84389
D) 92150 E) 95599

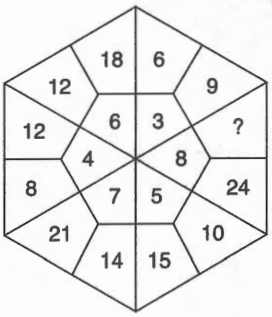
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25.



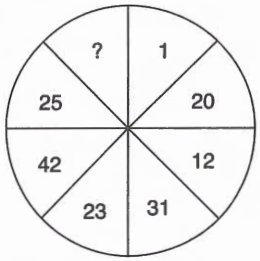
A) 9 B) 7 C) 6 D) 4 E) 2

26.



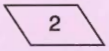
A) 17 B) 29 C) 26 D) 19 E) 16

27.



A) 40 B) 47 C) 51 D) 62 E) 75

28.







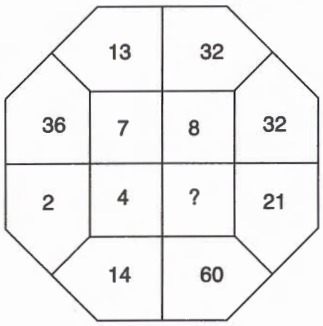


İlk üç satırda belirlenen ilişkiye göre, IV. satırdaki soru işaretinin yerine hangi sayı gelmelidir?

Which of the numbers below completes IV, in ccordance with the relationship established in I, II and III?

A) 1 B) 5 C) 10 D) 16 E) 25

29.

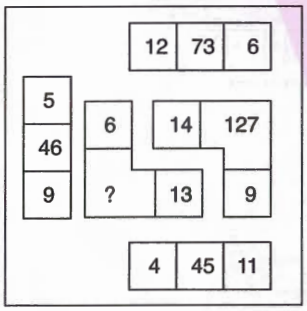


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Which of the followings is stand for in question mark given figure above?

A) 3 B) 5 C) 6 D) 9 E) 11

30.

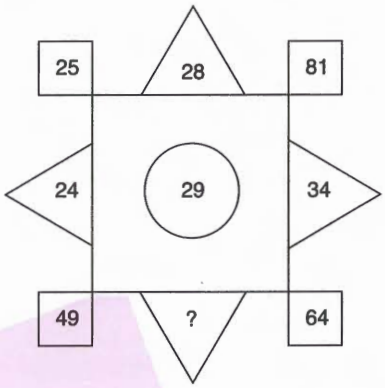


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Which of the followings is stand for in question mark given figure above?

A) 28 B) 34 C) 49 D) 62 E) 79

31.

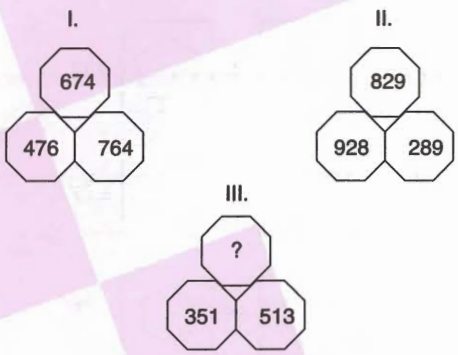


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Which of the followings is stand for in question mark given figure above?

A) 15 B) 18 C) 21 D) 30 E) 34

32.

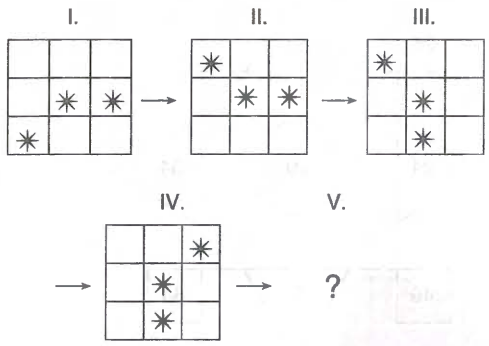


I. ve II. şekilde belirlenen ilişkiye göre, III. şekildeki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

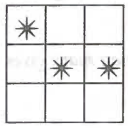
Which of the numbers below completes III, in acordance with the relationship established in I. and II. figure?

A) 135 B) 315 C) 153 D) 531 E) 351

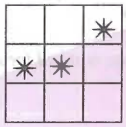
33.



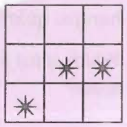
A)



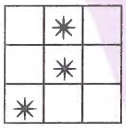
B)



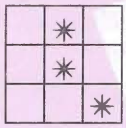
C)



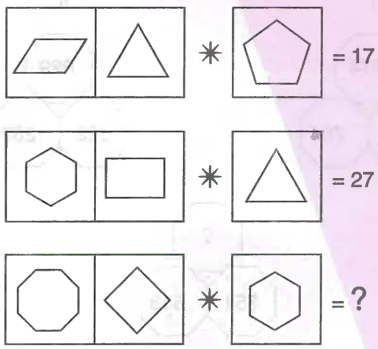
D)



E)



34.

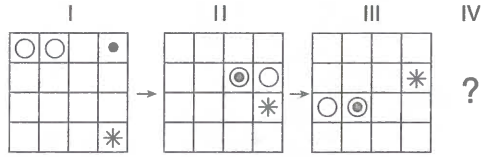


I. ve II. şekilde belirlenen ilişkiye göre, III. şekildeki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

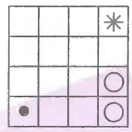
Which of the numbers below completes III, in acordance with the relationship established in I. and II. figure?

A) 29 B) 33 C) 35 D) 38 E) 42

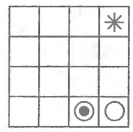
35.



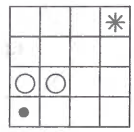
A)



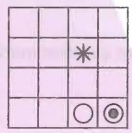
B)



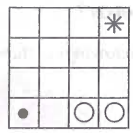
C)



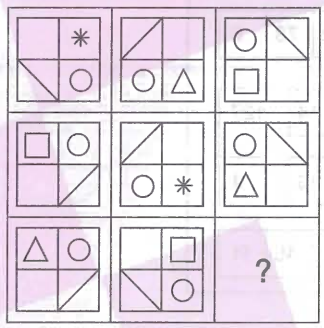
D)



E)



36.



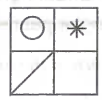
A)



B)



C)



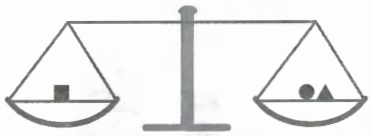
D)

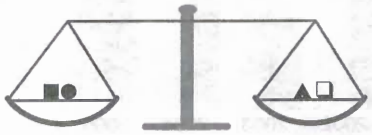


E)



37.

I. 

II. 

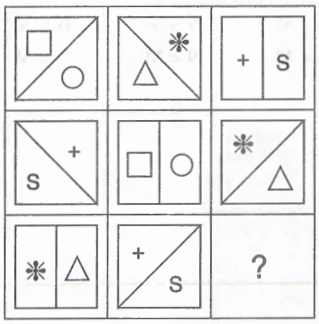
III. 

I. ve II. terazi dengede olduğuna göre, ■, ● ve ▲ arasındaki ilişki aşağıdakilerden hangisidir?

In accordance with I and II, what is the relation between ■, ● and ▲ given the followings?

A) ●●● B) ▲▲ C) ●▲ D) ■■● E) ■●●

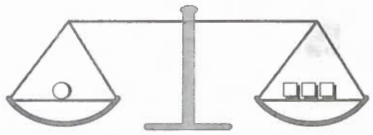
38.

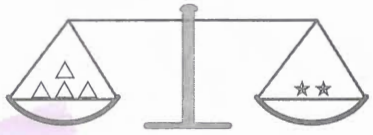


A)  B)  C) 

D)  E) 

39.

I. 

II. 

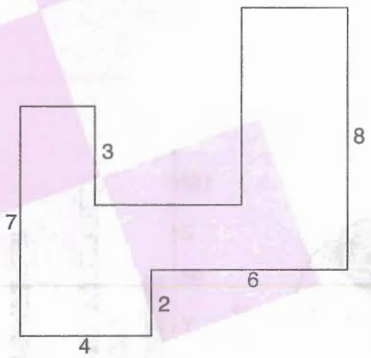
III. 

I. ve II. terazi dengede olduğuna göre, ❍, ❑, ★ ve Δ arasındaki ilişki aşağıdakilerden hangisidir?

In accordance with I and II, what is the relation between ❍, ❑, ★ and Δ given the followings?

A) △△❍ B) △❑ C) △❑★ D) △△△ E) ★★❑

40.



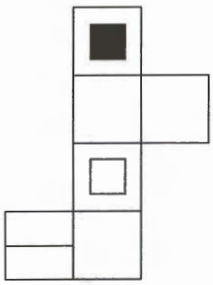
Yukarıdaki şeklin çevresi kaç birimdir?

What is the perimeter of the given figure above?

A) 38 B) 40 C) 42 D) 46 E) 50

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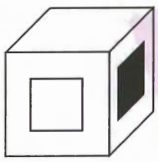
41.



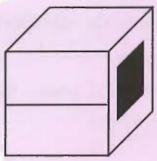
Yukarıda verilen küpün kapalı hali aşağıdakilerden hangisidir?

Which of the following is closed form of the given cube above?

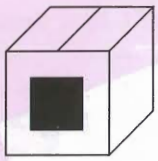
A)



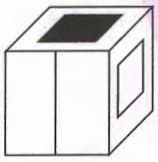
B)



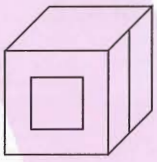
C)



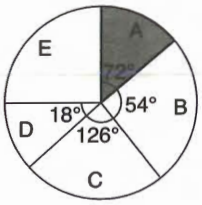
D)



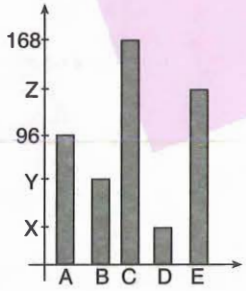
E)



42.



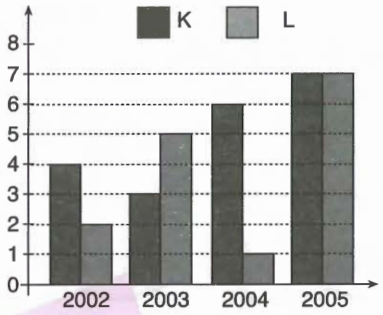
⇒



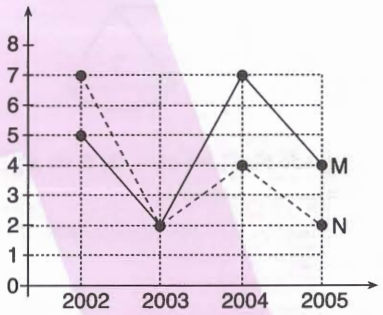
⇒ X + Y + Z = ?

A) 164 B) 188 C) 216 D) 224 E) 240

43.



2002: K > L
2003: K < L
2004: K > L
2005: K = L



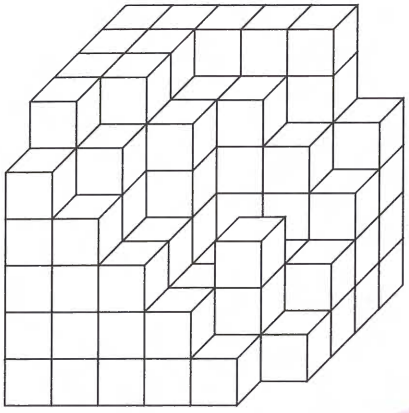
2002: M?N
2003: M?N
2004: M?N
2005: M?N

II. grafikte 2002, 2003, 2004 ve 2005 yıllarında M ile N arasındaki ilişki nasıldır?

Given graph II, what is the relation between M and N in the years 2002, 2003, 2004 and 2005?

	2002	2003	2004	2005
A)	N > M	N = M	N < M	N > M
B)	N = M	N > M	N < M	N < M
C)	N > M	N < M	N > M	N < M
D)	N > M	N = M	N < M	N < M
E)	N = M	N < M	N < M	N > M

44.

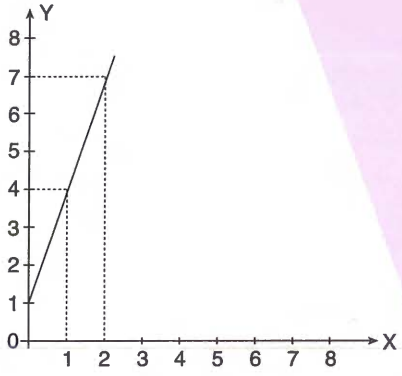


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above?

A) 101 B) 111 C) 121 D) 122 E) 132

45.



Y = 91 ⇒ X = ?

Yukarıdaki grafikteki bilgilere göre, Y = 91 iken X kaçtır?

According to the information in the figure above, what is the rate of X, when the rate of Y is 91?

A) 24 B) 28 C) 30 D) 34 E) 38

46.

$$\begin{array}{r} 2\,1\,2 \\ \times \quad 2\,a \\ \hline \cdot\ \cdot\ \cdot \\ +\ \cdot\ \cdot\ \cdot \\ \hline 4\,8\,7\,6 \end{array} \quad \Rightarrow a = ?$$

A) 1 B) 2 C) 3 D) 4 E) 8

47. $(123)_4 \cdot (12)_4 + (132)_4 = ?$

A) $(2000)_4$ B) $(2300)_4$ C) $(3000)_4$
D) $(3330)_4$ E) $(3332)_4$

48. $(232)_a = (6a)_7$

$\Rightarrow$ a = ?

A) 3 B) 4 C) 5 D) 6 E) 7

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49. $\dfrac{\tan 320^\circ \cdot \cot 290^\circ}{\cot 70^\circ \cdot \cot 220^\circ} = ?$

A) $\tan^2 40^\circ$ B) $\tan^2 20^\circ$ C) $\tan 40^\circ$
D) $\tan 20^\circ$ E) 1

50. $\dfrac{\sin 1790^\circ \cdot \tan 1000^\circ}{\cot 10^\circ \cdot \cos 1160^\circ} = ?$

A) 0 B) 1 C) –1
D) $\sin 10^\circ$ E) $\tan 10^\circ$

51. $f(x) = \sin x + \cos x \Rightarrow f'\left(\dfrac{\pi}{2}\right) = ?$

A) –2 B) –1 C) 0 D) 1 E) 2

52. $f(x) = \cos^2(2x) \Rightarrow f'(x) = ?$

A) $\sin(2x)$ B) $-2\sin x$ C) $-4\sin(2x)$
D) $-2\sin(4x)$ E) $-2\sin(2x)$

53. $\int \left(\dfrac{3}{2}x^2 - \dfrac{2}{5}x + 1\right)dx = ?$

A) $\dfrac{x^3}{2} - \dfrac{x^2}{5} + x + c$ B) $3x^3 - 2x^2 + x + c$

C) $3x^2 - 2x + c$ D) $\dfrac{x^2}{2} - \dfrac{x}{5} + c$

E) $\dfrac{3x^5}{2} - \dfrac{2x^2}{5} + x + c$

54. $\int \dfrac{2x+1}{x^2+x}dx = ?$

A) $x^2 + x + c$ B) $\ln|x^2 + x| + c$

C) $\dfrac{x^3}{3} + \dfrac{x^2}{2} + x + c$ D) $\ln|2x + 1| + c$

E) $\ln\left|\dfrac{x+1}{x^2+x}\right| + c$

55. $\int \sin x \cdot \cos x \, dx = ?$

A) $\sin x + c$ B) $\sin^2 x + c$

C) $\frac{\sin^2 x}{2} + c$ D) $\frac{\cos^2 x}{2} + c$

E) $\frac{\cos x}{2} + c$

56. $\frac{\frac{2}{\sqrt{3}}}{\frac{4}{}} + \frac{2}{\frac{\sqrt{3}}{4}} = ?$

A) $\frac{5\sqrt{3}}{2}$ B) $\frac{17\sqrt{3}}{6}$ C) $\frac{15\sqrt{3}}{2}$

D) $\frac{10\sqrt{3}}{3}$ E) $\frac{11\sqrt{3}}{3}$

57. $\frac{0,9}{0,02} + \frac{0,05}{0,2} - 0,25 = ?$

A) $\frac{33}{4}$ B) 25 C) 45 D) 47,25 E) 50

58. $\frac{2x-3}{6} - \frac{x-2}{9} = \frac{x-4}{3} + 1 \Rightarrow$ S.S. = ?

A) $\left\{-\frac{1}{2}\right\}$ B) $\{-1\}$ C) $\{1\}$

D) $\left\{\frac{1}{2}\right\}$ E) $\varnothing$

59. $\frac{2^{x-1} + 2^x}{2^{x+1} + 2^x} = ?$

A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{1}{4}$ D) 2 E) 4

60. $\frac{\left(\frac{2}{3} - \frac{1}{5}\right) + \left(\frac{1}{3} + \frac{1}{5}\right)}{\left(\frac{3}{4} + \frac{2}{5}\right) - \left(\frac{7}{5} - \frac{5}{4}\right)} = ?$

A) $\frac{1}{3}$ B) 0 C) 1 D) $\frac{3}{5}$ E) 5

61. $x < y < 0 < z \Rightarrow |x| + |x-y| + |z-y| = ?$

A) $z-2x$ B) $z-2x-2y$ C) $z+x$ D) $z-3x$ E) $z-3x+y$

62. $\left.\begin{array}{l} f(x)=3x+4 \\ g(x)=5x-2 \end{array}\right\} \Rightarrow (f+g)(2) = ?$

A) 11 B) 15 C) 16 D) 18 E) 20

63. $\dfrac{11!+12!}{10!}+4! = ?$

A) 167 B) 170 C) 180 D) 182 E) 190

64. $\dfrac{x^2-\dfrac{1}{x^2}}{x+\dfrac{1}{x}}+\dfrac{1}{x} = ?$

A) $-x^2$ B) x^2 C) x D) $\dfrac{1}{x}$ E) $\dfrac{1}{x^2}$

65. $\left.\begin{array}{l} n(A) = 2n(B) \\ n(A \cap B) = 5 \\ n(A \cup B) = 19 \end{array}\right\} \Rightarrow 2^{n(B \setminus A)} = ?$

A) 1 B) 2 C) 4 D) 8 E) 16

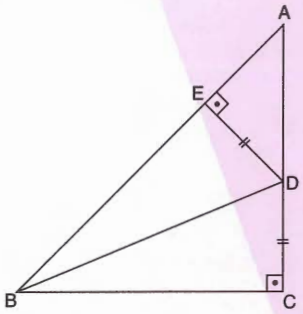
66. $f(x) = 3 - \dfrac{1}{3-\dfrac{1}{x-\dfrac{7}{4}}} \Rightarrow f^{-1}(4) = ?$

A) –2 B) –1 C) 0 D) 1 E) 2

67. $\frac{\pi}{2} < \alpha < \pi \quad \cos\alpha = -\frac{3}{5} \Rightarrow \tan\alpha = ?$

A) $-\frac{4}{3}$ B) $-\frac{3}{4}$ C) $\frac{3}{4}$ D) $\frac{4}{3}$ E) $\frac{5}{4}$

68.



$[AC] \perp [BC]$
$[ED] \perp [AB]$
$|ED| = |DC|$
$\sin(\widehat{DBC}) = \frac{3}{5}$
$\Rightarrow \sin(\widehat{ABC}) = ?$

A) $\frac{7}{25}$ B) $\frac{5}{7}$ C) $\frac{12}{25}$ D) $\frac{24}{25}$ E) $\frac{49}{50}$

69. $f\left(\frac{x-1}{x+1}\right) = \frac{x+1}{x-1} \Rightarrow f^{-1}(x) = ?$

A) $-x$ B) x C) $\frac{1}{x}$ D) $2x$ E) $\frac{1}{2x}$

70. $\log_3(\log_2(x+3)) = 1 \Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

71. $\frac{x-1}{2} = \frac{y+2}{3} \quad x+y = 14 \Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

72. $\lim_{x\to 1} \frac{x^2-1}{x^2-3x+2} = ?$

A) –2 B) –1 C) 0 D) 1 E) 2

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73. $\lim\limits_{x\to\frac{1}{5}}\left(\dfrac{x^3-\frac{1}{125}}{x^2-\frac{1}{25}}\right)=?$

A) $\frac{1}{10}$ B) $\frac{3}{5}$ C) $\frac{3}{10}$ D) $\frac{2}{5}$ E) $\frac{7}{10}$

74. $\lim\limits_{x\to\infty}\dfrac{2x+x^2-5}{3x^2-27}=?$

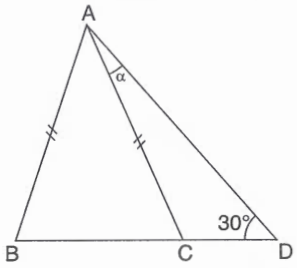
A) $\frac{1}{3}$ B) $\frac{2}{3}$ C) $\frac{5}{27}$ D) $\frac{15}{4}$ E) $\frac{125}{4}$

75. $\left.\begin{array}{l}\log 2=a\\ \log 3=b\\ \log 5=c\end{array}\right\}\Rightarrow \log_{30}60=?$

A) $\dfrac{a+b+c+1}{a+b+c}$ B) $\dfrac{2a+b+c}{a+b+c}$ C) $\dfrac{a+2b+c}{a+2b}$

D) $\dfrac{2a+2b+c}{a+b+c}$ E) $\dfrac{a+b+c}{2a+b+c}$

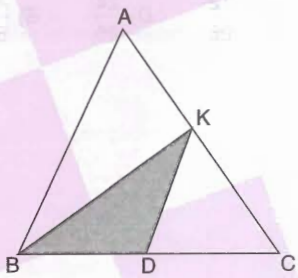
76.



$|AB| = |AC|$
$|AD| = |BD|$
$m(\widehat{ADB}) = 30°$
$m(\widehat{DAC}) = \alpha$
$\Rightarrow \alpha = ?$

A) 20 B) 25 C) 30 D) 35 E) 45

77.

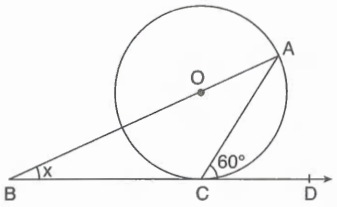


$5|AK| = 2|KC|$
$3|BD| = 2|DC|$
$A(ABC) = 140\ br^2$
$\Rightarrow A(BDK) = ?$

A) 10 B) 20 C) 40 D) 60 E) 70

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78.



O, merkez *(center)*

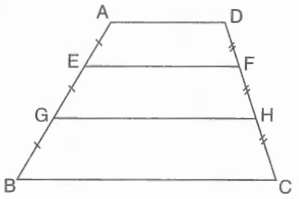
$m(\widehat{ACD}) = 60°$

$m(\widehat{ABD}) = x$

$\Rightarrow x = ?$

A) 15 B) 30 C) 45 D) 60 E) 75

80.



ABCD yamuk *(trapezoid)*

[AD] // [BC]

|AE| = |EG| = |GB|

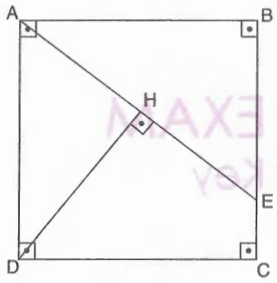
|DF| = |FH| = |HC|

$A(ABCD) = 108\ br^2$

$\Rightarrow A(EGHF) = ?$

A) 18 B) 36 C) 48 D) 54 E) 72

79.



ABCD kare *(square)*

|AD| = 8 br

[DH] ⊥ [AE]

|BE| = 3|EC|

$\Rightarrow$ |DH| = ?

A) $\frac{19}{5}$ B) 8 C) $\frac{32}{5}$ D) $\frac{41}{6}$ E) 7

DENEME SINAVI 13 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	A	E	B	D	D	D	B	E	B	B	D	B	E	E	E	D	A	C	A

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
E	D	B	C	A	E	D	D	D	E	D	C	B	D	E	E	A	C	A	D

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
E	C	D	C	C	C	C	B	A	B	B	D	A	B	C	B	C	D	A	C

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
A	D	A	C	D	E	A	D	C	E	D	A	C	A	B	E	C	B	C	B

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DENEME SINAVI 14

TRIAL EXAM 14

1. I. $a \blacktriangle b = a^2 \blacksquare b^2$

II. $a \blacksquare b = \frac{a+b}{a \cdot b}$

III. $4 \blacktriangle 2 = ?$

Yukarıdaki iki eşitlikte ▲ ve ■ işaretlerinin görevleri verilmiştir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

In the equations above, the functions of ▲ and ■ are given. What does the question mark stand for in the third equation?

A) 2 B) $\frac{3}{4}$ C) $\frac{9}{8}$ D) $\frac{5}{16}$ E) $\frac{7}{15}$

2. I. $a \odot b = b \blacktriangledown (a+b)$

II. $a \blacktriangledown b = \frac{a^2+b^2}{b-a}$

III. $2 \odot 6 = ?$

Yukarıdaki iki eşitlikte ⊙ ve ▼ işaretlerinin görevleri verilmiştir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

In the equations above, the functions of ⊙ and ▼ are given. What does the question mark stand for in the third equation?

A) 20 B) 35 C) 40 D) 50 E) 55

3. I. $24 \bullet 13 = 22$

II. $34 \bullet 25 = 18$

III. $56 \bullet 32 = 48$

IV. $45 \bullet 29 = ?$

Yukarıdaki üç eşitlikte ● işaretinin görevi aynıdır. Buna göre, dördüncü eşitlikteki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

In the equations above, the function of ● remains unchanged. What does the question mark stand for in the fourth equation?

A) 24 B) 28 C) 32 D) 36 E) 40

4. I. $2 \boxdot 6 = \frac{4}{8} = \frac{1}{2}$

II. $4 \boxdot 8 = \frac{4}{12} = \frac{1}{3}$

III. $3 \boxdot 5 = \frac{2}{8} = \frac{1}{4}$

IV. $a \boxdot b = ?$

Yukarıdaki üç eşitlikte ⊡ işaretinin görevi aynıdır. Buna göre, dördüncü eşitlikteki soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

In the equations above, the function of ⊡ remains unchanged. What does the question mark stand for in the fourth equation?

A) $\frac{b}{a+b}$ B) $\frac{a}{a+b}$ C) $\frac{a-b}{a+b}$ D) $\frac{b-a}{a+b}$ E) $\frac{a \cdot b}{a-b}$

5.

$$\begin{array}{r} MM \\ +\ LL \\ \hline NN0 \end{array} \qquad \begin{array}{r} M \\ -\ L \\ \hline 4 \end{array} \qquad \Rightarrow L + N = ?$$

A) 3 B) 4 C) 5 D) 7 E) 8

6.

$$\begin{array}{r} NM \\ +\ LK \\ \hline 1RP \end{array} \qquad \begin{array}{r} P \\ +\ 1 \\ \hline M \end{array} \qquad \begin{array}{r} R \\ +\ 1 \\ \hline N \end{array} \qquad \Rightarrow LK = ?$$

A) 69 B) 79 C) 89 D) 91 E) 98

7.

$$\begin{array}{r|l} ML & L \\ - & \\ \hline 0 & KL \end{array} \qquad \begin{array}{r|l} PN & N \\ - & \\ \hline 0 & KN \end{array} \qquad \Rightarrow P + M + K = ?$$

A) 13 B) 15 C) 16 D) 17 E) 19

8.

$$\begin{array}{r} NMKL \\ MKL \\ KL \\ +\ \ L \\ \hline 6328 \end{array} \qquad \begin{array}{r} K \\ +\ L \\ \hline M \end{array} \qquad \Rightarrow M = ?$$

A) 4 B) 5 C) 6 D) 7 E) 8

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9.

I	K	0	1
II	2	L	2
III	1	1	M

K = ?

L = ?

M = ?

Yukarıdaki tabloda K, L ve M'nin yerine hangi rakamlar gelmelidir?

Which numbers do K, L and M stand for in the table above?

	K	L	M
A)	1	2	4
B)	0	2	1
C)	1	4	1
D)	1	2	0
E)	0	4	0

10.

I. $a \Rightarrow a^3 \Rightarrow \frac{a^3}{3} \Rightarrow \frac{4a^3}{3}$

II. $3 \Rightarrow ?$

I. satırda belirlenen ilişkiye göre, II. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes II, in accordance with the relationship established in I?

A) 1 B) 8 C) 48 D) 64 E) 125

11.

I	4	3	0
II	1	0	1
III	0	6	0
IV	0	0	2

I = ⌓

II = ?

III = ?

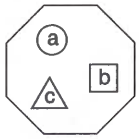
IV = ?

Yukarıdaki tabloda I rakamı ⌓ şeklini göstermektedir. Buna göre, II, III ve IV rakamları hangi şekilleri göstermektedir?

In the table above, the numeral I stands for the figure ⌓. Which figures do the numerals II, III and IV stand for?

	II	III	IV
A)	△	□	◺
B)	□	△	◺
C)	□	◺	△
D)	△	◺	□
E)	□	△	⌓

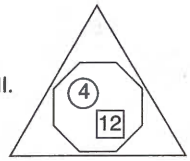
12.

I. 

$\Rightarrow a^2 . \frac{b}{4} .3c$

II. 

$\Rightarrow$ 144

III. 

$\Rightarrow$?

I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III, in accordance with the relationship established in I and II?

A) 84 B) 121 C) 144 D) 169 E) 183

13.

+	a	b	c
a		43 – 3b	
b			23 – b
c	22 –2c		

$\Rightarrow a + b + c = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a+b+c kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of a+b+c?

A) 15 B) 17 C) 19 D) 21 E) 23

14.

+	a	b	c
a			b – 6
b		6 · c	36

$\Rightarrow a = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of a?

A) 9 B) 12 C) 15 D) 18 E) 27

15.

+	a	b	c
a		10	
b			

x	a	b	c
a			6 . b
b			54

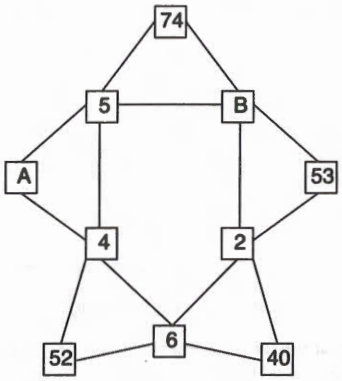
$\Rightarrow b = ?$

Yukarıdaki çarpma ve toplama tablolarında a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre b kaçtır?

In the multiplication and summation tables above, the letters a, b ve c each stand for a specific number. What is the value of b?

A) 2 B) 4 C) 6 D) 8 E) 9

16.



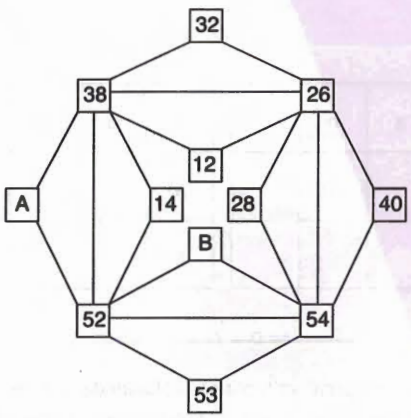
⇒ A + B = ?

Yukarıdaki şemada belirlenen kurala göre, A+B kaçtır?

Given the relationship established in the diogram above, what is the valve of A+B ?

A) 39 B) 44 C) 48 D) 52 E) 56

17.



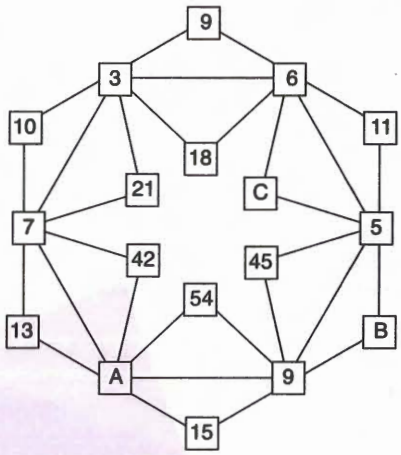
⇒ A + B = ?

Yukarıdaki şemada belirlenen kurala göre, A+B kaçtır?

Given the relationship established in the diogram above, what is the valve of A+B?

A) 39 B) 43 C) 47 D) 52 E) 65

18.



⇒ A + B + C = ?

Yukarıdaki şemada belirlenen kurala göre, A+B+C kaçtır?

Given the relationship established in the diogram above, what is the valve of A+B+C?

A) 38 B) 42 C) 46 D) 50 E) 58

19

3	2	8
4	1	1
3	3	27
5	2	?

A) 3 B) 10 C) 25 D) 32 E) 50

20.

I	II	III	IV	V
26	48	31	70	36
47	89	62	141	?

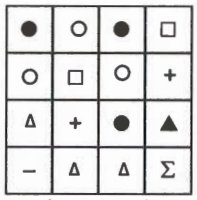
A) 54 B) 67 C) 72 D) 108 E) 124

21.

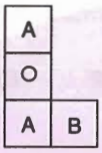
4197	516	67	?

A) 137 B) 13 C) 7 D) 6 E) 76

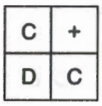
22.



II.



I.



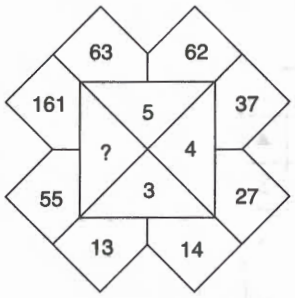
A=●, B=▲ C = ?, D = ?

I ve II, yukarıdaki tablonun farklı birer parçasıdır. Buna göre, II'deki C ve D nin yerine aşağıdakilerden hangisi gelmelidir?

I and II are two different parts of the table above. Which of the following do C and D stand for in II?

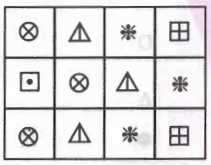
	C	D
A)	–	Δ
B)	x	●
C)	–	+
D)	Δ	–
E)	Δ	●

23.

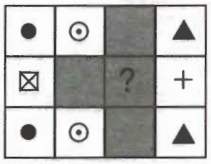


A) 7 B) 1 C) 8 D) 2 E) 6

24. I.

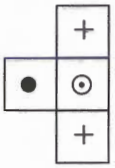


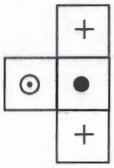
II.

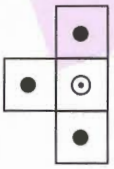


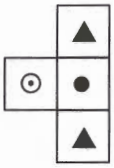
I. şekilde belirlenen kurala göre, II. şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

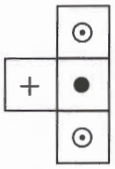
Given the relationship established in figure I, which of the following does the question mark stand for in figure II?

A) 

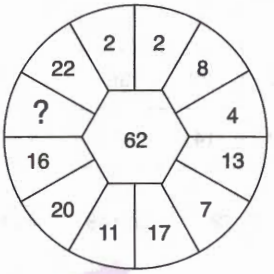
B) 

C) 

D) 

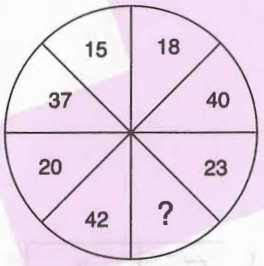
E) 

25.



A) 12 B) 16 C) 18 D) 20 E) 22

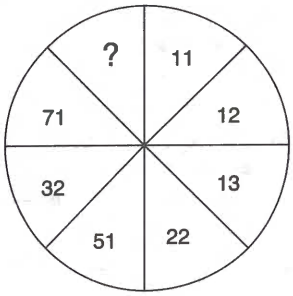
26.



A) 36 B) 38 C) 40 D) 42 E) 45

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27.



A) 82 B) 74 C) 62 D) 42 E) 34

28.

⊗	N	Δ	ε	❋	V
N	❋	V	N	Δ	ε
Δ	V	N	Δ	ε	❋
ε	N	Δ	ε	❋	V
❋	Δ	ε	❋	V	N
V	ε	❋	V	N	Δ

⇒ ((Δ ⊗ ε) ⊗ V) ⊗ ((❋ ⊗ N) ⊗ Δ) = ?

Yukarıdaki tabloda ⊗ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ⊗ operation established in the table above, which of the following does the question mark stand for?

A) N B) Δ C) ε D) ❋ E) V

29.

⊙	Δ	□	Σ	●	Z
Δ	□	Σ	●	Z	Δ
□	Σ	●	Z	Δ	□
Σ	●	Z	Δ	□	Σ
●	Z	Δ	□	Σ	●
Z	Δ	□	Σ	●	Z

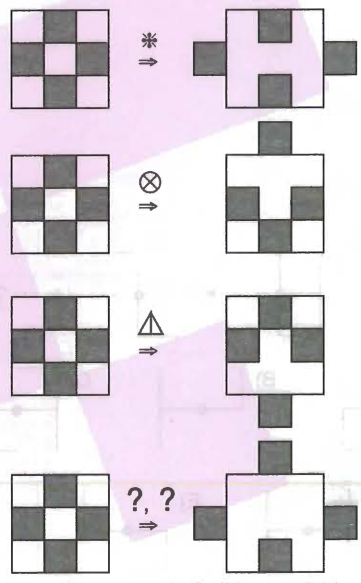
[(Z ⊙ □) ⊙ (Δ ⊙ ●)] ⊙ (Σ ⊙ ?) = Z

Yukarıdaki tabloda ⊙ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ⊙ operation established in the table above, which of the following does the question mark stand for?

A) Δ B) □ C) Σ D) ● E) Z

30.



I., II. ve III. satırlarda belirlenen ilişkiye göre, IV. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes IV, in accordance with the relationship established in I, II and III?

A) ❋, ⚠ B) ⚠, ⊗ C) ❋, ⊗
D) ⊗, ⊗ E) ❋, ❋

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31.

△	⊡ ✱	⊕ Σ	⧋
Σ ✱	⊡ Σ	✱ ⊕	Σ ✱ ⧋
Σ	Σ ⊡ ✱	⊕	Σ ⧋
✱ ⊕	⊕ ⊡	✱ Σ	?

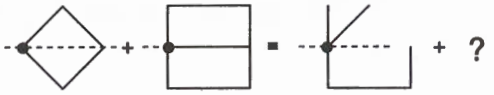
Yukarıdaki tablo △ işlemine göre düzenlenmiştir. Buna göre, soru işaretinin yerine hangi şekiller gelmelidir?

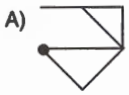
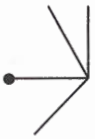
The table above is organized according to the △ operation. Which of the following does the question mark stand for?

A) ⧋ ✱ B) Σ ⊕ C) ⧋ ✱ ⊕

D) ⊕ ✱ E) ⧋ Σ

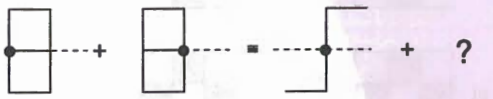
33.



A)  B)  C) 

D)  E) 

32.

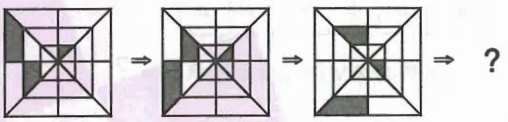


A)  B)  C) 

D)  E) 

34.

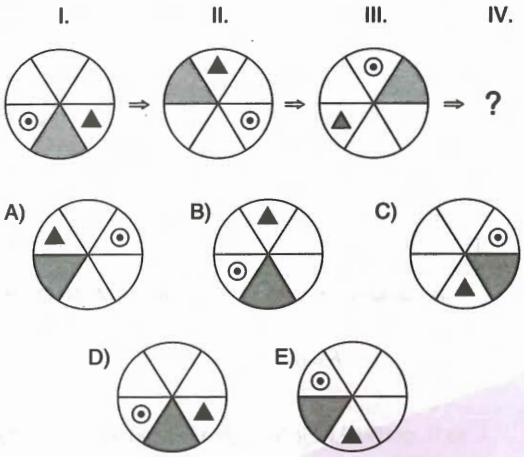
I. II. III. IV.



A)  B)  C) 

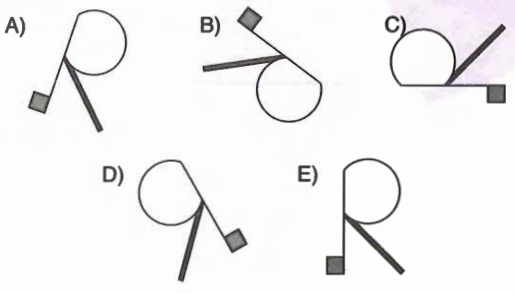
D)  E) 

35.

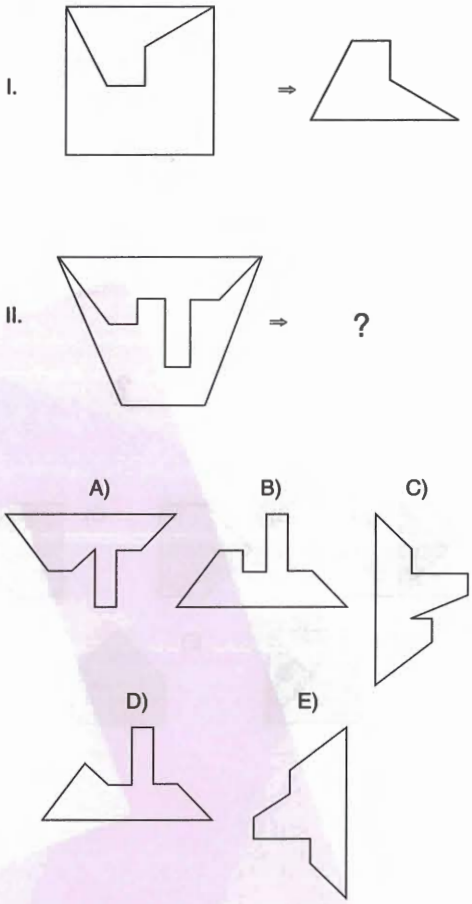


36. Aşağıdakilerden hangisi diğerlerinden farklıdır?

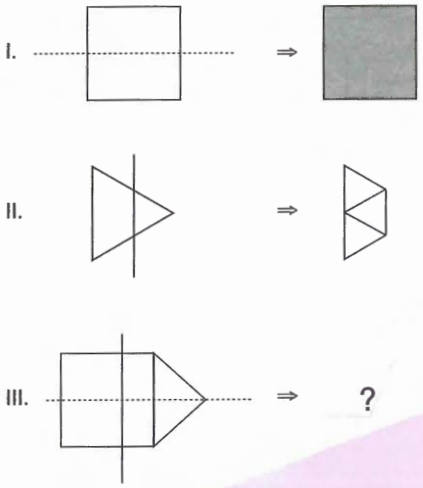
Which of the followings is different?



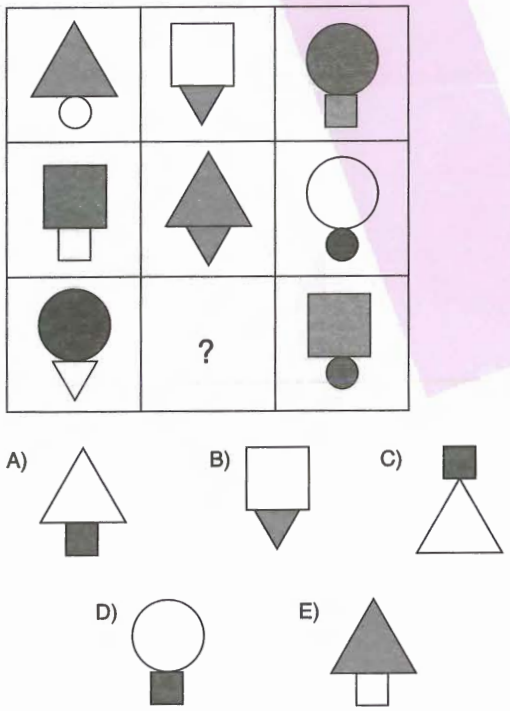
37.



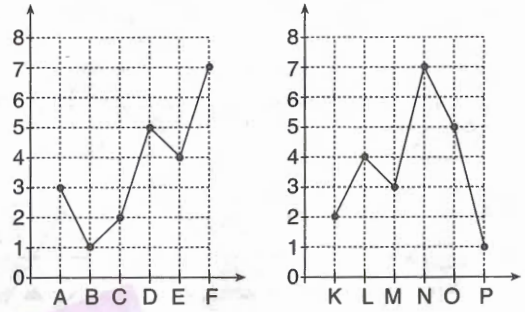
38.



39.



40.



A = M ⇒ F = ?

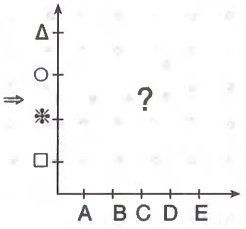
I. ve II. grafikteki bilgilere göre F aşağıdakilerden hangisine eşittir?

Given the information in groups I and II, which of the followings is equal to F?

A) K B) L C) N D) O E) P

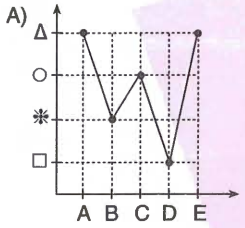
41.

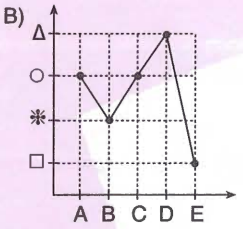
	A	B	C	D	E
Δ		+			+
○			+		
✻	+				
□				+	

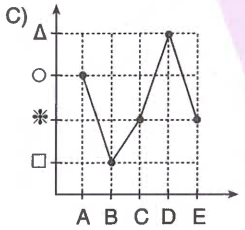


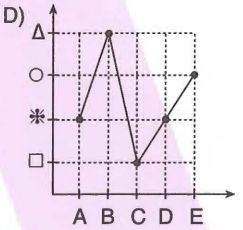
Yukarıdaki tabloda verilen bilgilere göre şekillerle harfler arasındaki ilişkiyi gösteren çizgi grafik aşağıdakilerden hangisidir?

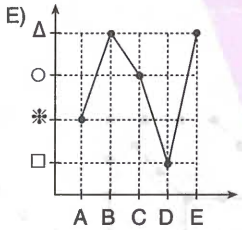
In accordance with the information supplied in the table above, which of the following line, graphs represents the relationship between the figures and the letters?

A)


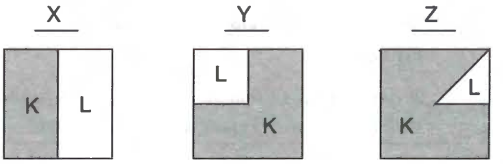
B)


C)


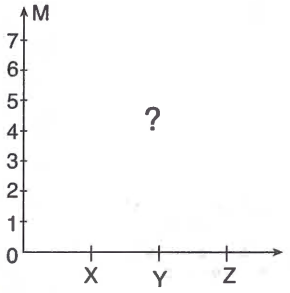
D)


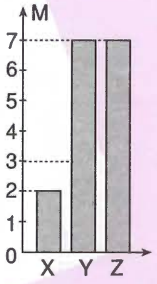
E)


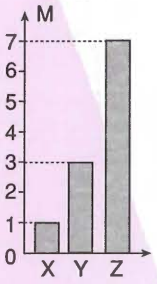
42.

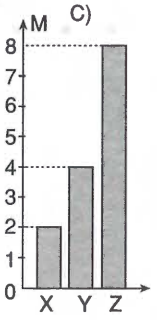


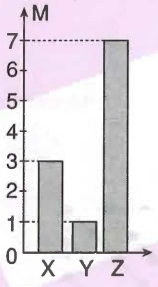
$M = \frac{K}{L}$

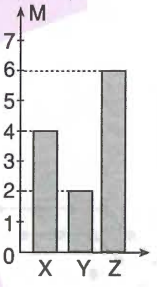


A)


B)


C)


D)


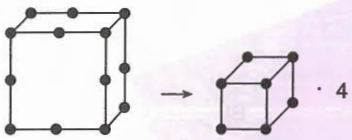
E)


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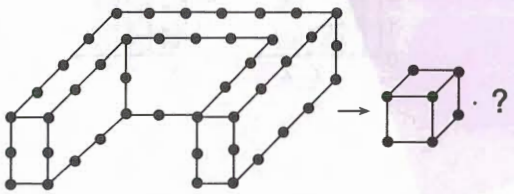
43. - 45. soruları örnekte verilen ilişkiye göre cevaplayınız.

In questions 43-45, find the correct answer in accordance with the relationship established in the example.

ÖRNEK (EXAMPLE)

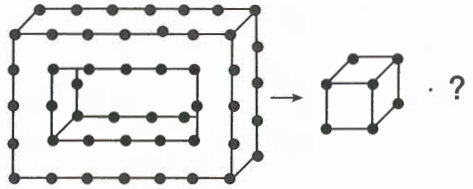


43.



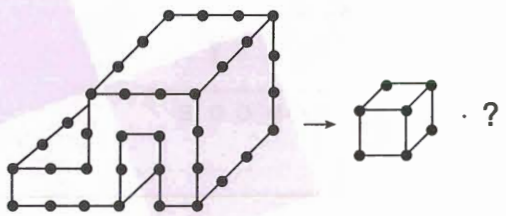
A) 12 B)18 C) 20 D) 24 E) 28

44.



A) 12 B) 14 C) 16 D) 18 E) 20

45.



A) 21 B) 24 C) 27 D) 30 E) 33

46. $A = 1\cdot2 + 2\cdot3 + 3\cdot4 + \ldots\ldots\ldots + 18\cdot19$

$B = 4\cdot4 + 8\cdot6 + 12\cdot8 + \ldots\ldots\ldots + 72\cdot38$

$\Rightarrow \frac{B}{A} = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

47. $(ab)_5 + (ba)_5 = (121)_5$

$\Rightarrow a + b = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

48.
$$\begin{array}{r} a\ b\ 3 \\ \times\quad 4\ c \\ \hline 9\ 1\ 8 \\ +\ \cdot\ \cdot\ \cdot \\ \hline \cdot\ \cdot\ d\ 8 \end{array} \quad \Rightarrow a+b+c+d = ?$$

A) 11 B) 12 C) 13 D) 14 E) 15

49. $\frac{x!}{4!\cdot(x-3)!} = 30 \Rightarrow x = ?$

A) 10 B) 9 C) 8 D) 7 E) 6

50. $\frac{10! - 6\cdot8!}{42\cdot7!} = ?$

A) 20 B) 18 C) 16 D) 10 E) 8

51. $\frac{a^3+2a^2}{4-a^2} : \frac{a^2}{a^2-2a} = ?$

A) $\frac{a+2}{a}$ B) $-\frac{2}{a}$ C) $\frac{1}{2-a}$

D) $\frac{a}{a+2}$ E) $-a$

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52. $x = \sqrt[3]{2}$

$\Rightarrow (x-1)(x^2+x+1) = ?$

A) 5 B) 4 C) 3 D) 2 E) 1

53. $\left(1-\frac{1}{x}-\frac{6}{x^2}\right):\left(2-\frac{7}{x}+\frac{3}{x^2}\right) = ?$

A) $\frac{x-1}{x-3}$ B) $\frac{x+2}{2x-1}$ C) $\frac{x+1}{2x+3}$

D) $\frac{x-2}{2x-3}$ E) $\frac{x-3}{2x+1}$

54. $\sqrt{x+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}} = 5 \Rightarrow x = ?$

A) 19 B) 20 C) 24 D) 27 E) 30

55. $[8:2-2\cdot 4+12]-15:5 = ?$

A) 3 B) 5 C) 7 D) 11 E) 13

56. $a \in R^+$

$\frac{ab}{3} = \frac{bc}{2} = \frac{ac}{4} \Rightarrow$ a, b, c ? < ? < ?

A) $c<b<a$ B) $b<c<a$ C) $b<a<c$

D) $a<c<b$ E) $a<b<c$

57. $2^{x+1} = 5 \Rightarrow 2^{x-1} = ?$

A) 10 B) 5 C) $\frac{5}{2}$ D) $\frac{5}{4}$ E) 1

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58. $3x^2 + (m+1)x - (m+4) = 0$

$x_1 = \frac{2}{x_2} \Rightarrow m = ?$

A) -10 B) -8 C) -6 D) -4 E) -2

59. $\frac{\frac{1}{3}}{5} - \frac{1}{\frac{3}{5}} = ?$

A) $-\frac{8}{5}$ B) $-\frac{4}{15}$ C) 0 D) $\frac{5}{4}$ E) $\frac{7}{16}$

60. $\frac{\sqrt{5-2\sqrt{6}}}{\sqrt{2}-\sqrt{3}} = ?$

A) $5+2\sqrt{3}$ B) $5-2\sqrt{3}$ C) 1

D) -1 E) $-\sqrt{3}$

61. $A \subset B \subset C$

$n(A) = 2$
$n(B) = 5$
$n(C) = 9$

$\Rightarrow n(C \setminus B) + n(B \setminus A) = ?$

A) 9 B) 8 C) 7 D) 6 E) 5

62. $|x-1| + |2-2x| = 6 \Rightarrow$ S.S. = ?

A) $R - \{-1, 3\}$ B) $[1, 3]$ C) $(-1, 3)$

D) $\{1, 3\}$ E) $\{-1, 3\}$

63. $\log_a \frac{b}{c} + \log_a \frac{c}{b} = ?$

A) $\log a$ B) 0 C) $\log \frac{b}{c}$

D) 1 E) -1

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64. $f(x)=\dfrac{x^3-8}{x^2+2x+4}+2 \Rightarrow f^{-1}(x)=?$

A) $x-2$ B) $-x$ C) x

D) $\dfrac{1}{x}$ E) $2-\dfrac{x^2+2x+4}{x^3-8}$

65. $f(x)=\begin{cases}x^2-3 & x\geq 1\\ 2x+4 & x<1\end{cases}$

$\Rightarrow (fof)(1)=?$

A) 33 B) 16 C) 1 D) 0 E) –2

66. $0<x<\dfrac{\pi}{2}$

$\tan x=\dfrac{5}{12} \Rightarrow \sin(2x)=?$

A) $\dfrac{169}{120}$ B) $\dfrac{120}{169}$ C) $\dfrac{60}{169}$

D) $\dfrac{147}{125}$ E) 1

67. $0,\overline{1}\cdot a+0,\overline{2}\cdot b=0,\overline{7}\cdot b \Rightarrow \dfrac{a}{b}=?$

A) $\dfrac{1}{3}$ B) $\dfrac{1}{5}$ C) 1 D) 3 E) 5

68. $f(x)=4^x \quad g(x)=\log_2(x-5) \Rightarrow (fog)(x)=?$

A) 4^{x-5} B) 2^{x-5} C) $x-5$

D) $(x-5)^2$ E) $(x-5)^4$

69. $2x^2-8x+16b=0$

$x_1\cdot x_2\cdot(x_1+x_2)=-128 \Rightarrow b=?$

A) -4 B) -2 C) 1 D) 2 E) 4

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70. $\dfrac{1+\cos(2x)}{1-\cos(2x)} = ?$

A) tanx B) cotx C) $\cot^2 x$ D) $\tan^2 x$ E) secx

71. $\lim\limits_{x\to 1} \dfrac{2x^3+4x^2-5}{x^3+5x+1} = ?$

A) $-\dfrac{5}{7}$ B) $-\dfrac{1}{7}$ C) $\dfrac{1}{7}$ D) 1 E) 2

72. $f(x) = \sqrt[3]{x}\cdot(x^2-1)$

$\dfrac{df(x)}{dx} = f'(x) \Rightarrow f'(1) = ?$

A) –2 B) –1 C) 0 D) 1 E) 2

73. $f(x) = \dfrac{x^2-3x+1}{x^2-2}$

$\dfrac{df(x)}{dx} = f'(x) \Rightarrow f'(0) = ?$

A) $-\dfrac{3}{2}$ B) $-\dfrac{1}{2}$ C) 1 D) $\dfrac{1}{2}$ E) $\dfrac{3}{2}$

74. $f(x) = x^5 + 5^x \Rightarrow \dfrac{df(x)}{dx} = f'(x) = ?$

A) $5x^4 + x\cdot 5^{x-1}$ B) $5x^4 + 5^x \cdot \ln 5$ C) $x^5 \cdot \ln x + 5^x \cdot \ln 5$ D) $\ln 5 \cdot (1+5^x)$ E) $\ln \cdot (1+5^x)$

75. $\dfrac{\sin x+\sin(3x)+\sin(5x)}{\cos x+\cos(3x)+\cos(5x)} = ?$

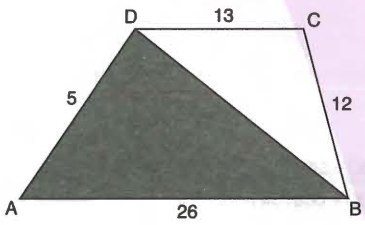
A) cot(5x) B) tan(5x) C) cot(3x) D) tan(3x) E) tanx

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76. $\log_3(x+1) = \log_3(\log_2 8) \Rightarrow x = ?$

A) 2 B) 3 C) 4 D) $\frac{3}{5}$ E) $\frac{2}{3}$

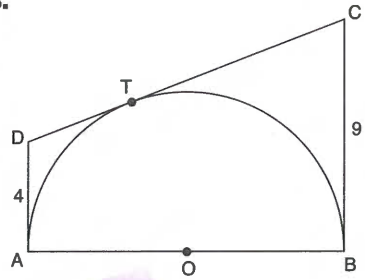
77.



[AB] // [DC]
|AB| = 26 br
|AD| = 5 br
|CD| = 13 br
|BC| = 12 br
⇒ A(ABD) = ?

A) 30 B) $30\sqrt{3}$ C) 60
D) $60\sqrt{3}$ E) 90

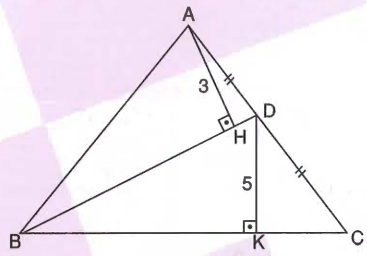
78.



O, merkez *(center)* [DC] doğrusu T noktasında çembere teğettir.
The Length of [DC] is tangent to the circle at the point T.
|AD| = 4 br
|BC| = 9 br
⇒ |AB| = ?

A) 10 B) 11 C) 12 D) 13 E) 14

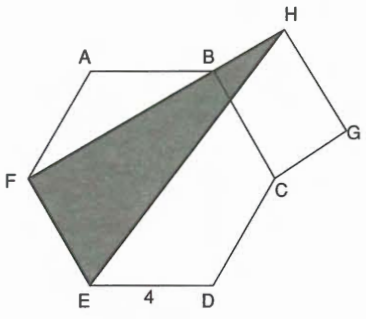
79.



[AH] ⊥ [BD]
[DK] ⊥ [BC]
|AD| = |DC|
|AH| = 3 br
|DK| = 5 br
⇒ $\frac{|BD|}{|BC|} = ?$

A) $\frac{1}{4}$ B) $\frac{3}{5}$ C) $\frac{4}{5}$ D) $\frac{5}{3}$ E) $\frac{5}{4}$

80.



BHGC Kare
(Square)
ABCDEF
düzgün altıgen
regular hexagon
|ED| = 4 br
A(FHE) = ?

A) $8\sqrt{3}$ B) $8\sqrt{3}+4$ C) $8\sqrt{3}+8$

D) $16+4\sqrt{3}$ E) $16+16\sqrt{3}$

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DENEME SINAVI 14 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
D	D	C	D	B	C	D	C	E	D	B	C	D	B	C	C	C	D	D	B

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
B	D	E	A	E	E	D	B	E	C	C	C	A	E	D	D	B	B	A	C

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
E	B	D	C	C	D	D	E	A	C	E	E	B	A	B	B	D	A	A	D

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C	E	B	C	D	B	E	D	A	C	C	E	E	B	D	A	C	C	D	C

DENEME SINAVI 15

TRIAL EXAM 15

1.

95174	☆✻★⁂□
17549	✻★□☆⁂
57914	⁂□✻★☆
41795	□★⁂✻☆
74519	★☆□✻⁂

⇒ 41795 = ?

A) ☆✻★⁂□ B) ✻★□☆⁂ C) ⁂□✻★☆
D) □★⁂✻☆ E) ★☆□✻⁂

2.

TASLAK	843849
KÖSTEK	278278
SEKSEK	142348
KASNAK	852178
KALKAN	842948

⇒ KASNAK = ?

A) 843849 B) 278278 C) 142348
D) 852178 E) 842948

3.

SİM	●❖❑
TOK	☞☆◆
MİS	■✍▲
KOT	◆☆☞
ZAR	❑❖●

⇒ ZAR = ?

A) ●❖❑ B) ☞☆◆ C) ■✍▲
D) ◆☆☞ E) ❑❖●

4.

$$\begin{array}{r} KLM \\ +\ NPR \\ \hline 1246 \end{array} \qquad \begin{array}{r} KLM \\ +\ STZ \\ \hline 1624 \end{array} \qquad \begin{array}{r} KLM \\ -\ NPR \\ \hline 222 \end{array}$$

⇒ S+T+Z = ?

A) 13 B) 15 C) 17 D) 19 E) 21

5.

$$\begin{array}{r} KPM \\ SMN \\ +\ TNP \\ \hline 831 \end{array} \qquad \begin{array}{r} KP \\ +\ SM \\ \hline 45 \end{array}$$

⇒ T+N = ?

A) 7 B) 8 C) 9 D) 10 E) 11

6.

$$\begin{array}{r} KLM \\ KLM \\ KLM \\ KLM \\ +\ KLM \\ \hline 48LM \end{array}$$

K + L + M = ?

A) 20 B) 21 C) 22 D) 23 E) 24

7.
$$\begin{array}{r} 5LMNP \\ RSTZ \\ + \\ \hline L1110 \end{array} \Rightarrow R = ?$$

A) 3 B) 4 C) 5 D) 6 E) 7

8. I. 24 ▲ 14 = 30

II. 12 ▲ 35 = 24

III. 51 ▲ 60 = 36

IV. 75 ▲ 28 = ?

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 22 B) 40 C) 60 D) 90 E) 120

9. I. 16 ● 9 = 14

II. 21 ● 13 = 16

III. 34 ● 20 = 28

IV. 42 ● 18 = ?

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 34 B) 40 C) 48 D) 52 E) 60

10. I. 24 ❋ 40 = 8

II. 35 ❋ 14 = 7

III. 60 ❋ 21 = 9

IV. 13 ❋ 12 = ?

Yukarıdaki ilk üç eşitlik ❋ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ❋ is unchanged. What does the question mark stand for in the fourth equation?

A) 2 B) 4 C) 5 D) 6 E) 10

11. I. $a \blacktriangle b = 3(a \blacksquare b) + 2$

II. $a \blacksquare b = a^2 - 3b + 4$

III. 5 ▲ 1 = ?

Yukarıdaki iki eşitlik ▲ ve ■ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ▲ and ■ are unchanged. What is the solution of the third equation?

A) 54 B) 62 C) 74 D) 80 E) 92

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12.

x	K	L	M
K			$\frac{1}{8}$
L	$\frac{1}{6}$		
M		$\frac{1}{12}$	

$\Rightarrow K \cdot L \cdot M = ?$

Yukarıdaki toplama tablosunda K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre K.L.M kaçtır?

In the summation table above, the letters K, L and M each stand for a specific number. What is the value of K.L.M?

A) $\frac{1}{18}$ B) $\frac{1}{24}$ C) $\frac{1}{36}$ D) $\frac{1}{44}$ E) $\frac{1}{48}$

13.

+	K	L	M
K		8	2 · L
L			12
M			

x	K	L	M
K	A		
L			
M			B

$\Rightarrow A + B = ?$

Yukarıdaki toplama ve çarpma tablolarında K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre A+B kaçtır?

In the summation and multiplication tables above, the letters K, L and M each stand for a specific number. What is the value of A+B?

A) 34 B) 38 C) 51 D) 58 E) 64

14.

4197	7419	9741	?

A) 4197 B) 7419 C) 9749 D) 1974 E) 7941

15.

x	K	L	M
K		11	
L			
M	13		

+	K	L	M
K		A	
L			
M	C		B

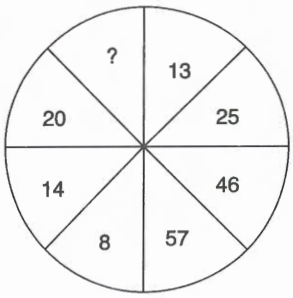
$\Rightarrow A + B + C = ?$

Yukarıdaki çarpma ve toplama tablolarında K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre A+B+C kaçtır?

In the multiplication and summation tables above, the letters K, L and M each stand for a specific number. What is the value of A+B+C?

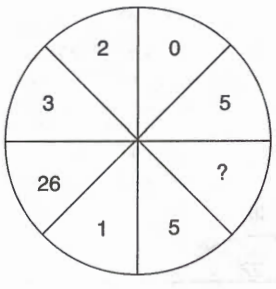
A) 50 B) 51 C) 52 D) 53 E) 54

16.



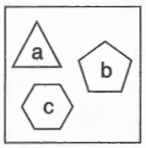
A) 2 B) 12 C) 24 D) 35 E) 70

17.

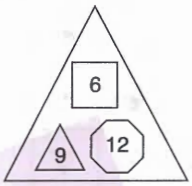


A) 4 B) 9 C) 10 D) 13 E) 16

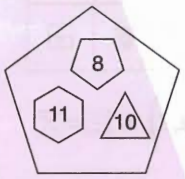
18.

I. 

$\Rightarrow \frac{(a-3)+(b-5)+(c-6)}{4}$

II. 

⇒ 4

III. 

⇒ ?

I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes III, in accordance with the relationship established in I and II?

A) 1 B) 2 C) 3 D) 5 E) 7

19.

✳	⊙	⧋	⊠	⋈	☆
⊙	⊠	⋈	☆	⊙	⧋
⧋	⋈	☆	⊙	⧋	⊠
⊠	☆	⊙	⧋	⊠	⋈
⋈	⊙	⧋	⊠	⋈	☆
☆	⧋	⊠	⋈	☆	⊙

$\left((☆ ✳ ⊙) ✳ ⊠\right) ✳ \left((⋈ ✳ ⧋) ✳ ⊙\right) ✳ ⋈ = ?$

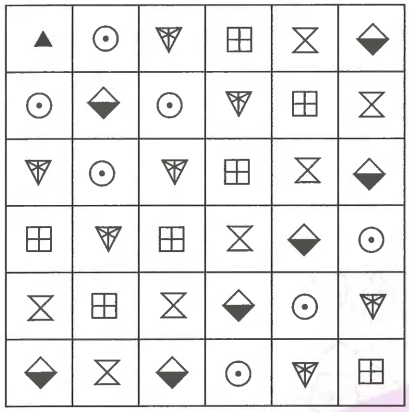
Yukarıdaki tabloda ✳ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ✳ operation established in the table above, which of the following does the question mark stand for?

A) ⊙ B) ⧋ C) ⊠ D) ⋈ E) ☆

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20.



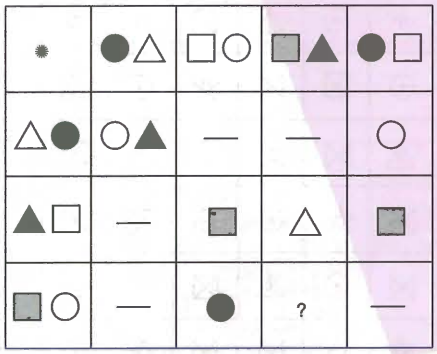
$((\boxtimes \blacktriangle \boxplus) \blacktriangle (\blacklozenge \blacktriangle \odot) \blacktriangle ?) \blacktriangle \boxplus = \boxtimes$

Yukarıdaki tabloda ▲ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ▲ operation established in the table above, which of the following does the question mark stand for?

A) ⊙ B) ⩛ C) ⊞ D) ⧖ E) ◆

21.

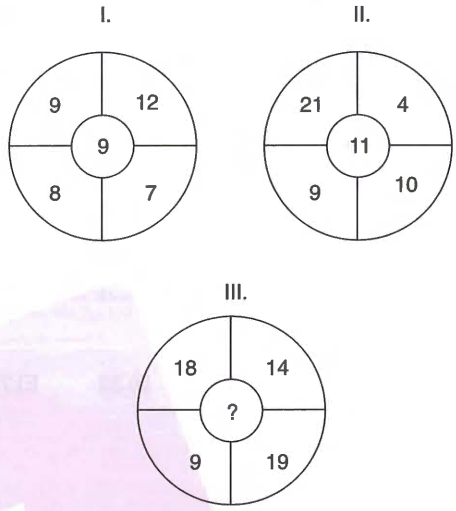


Yukarıdaki tabloda ✹ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ✹ operation established in the table above, which of the following does the question mark stand for?

A) ▲ B) ■ C) ◯ D) □ E) △

22.

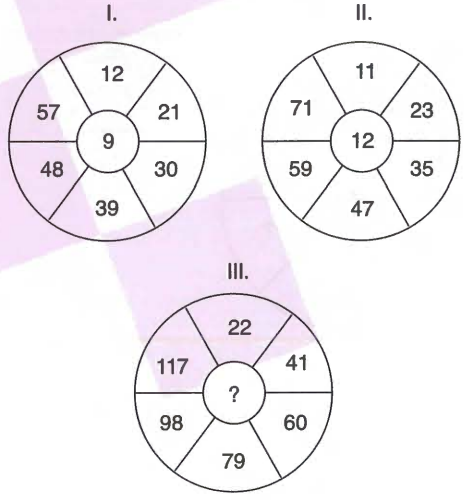


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 12 B) 14 C) 15 D) 17 E) 19

23.

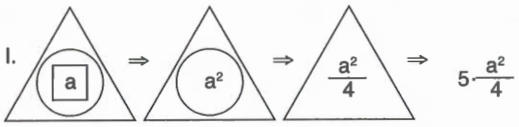


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 8 B) 9 C) 13 D) 19 E) 24

24.

I. 

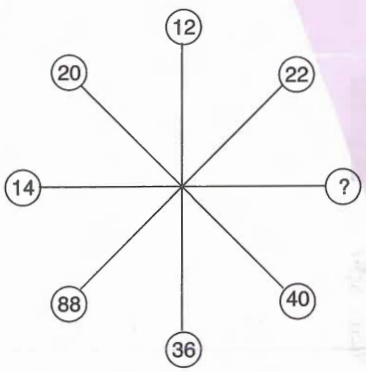
II. 

I. satırda belirlenen ilişkiye göre, II. satırı aşağıdakilerden hangisi tamamlar?

Which of the numbers below completes II, in accordance with the relationship established in I?

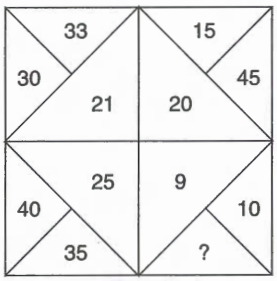
A) 1 B) 25 C) 30 D) 64 E) 100

25.



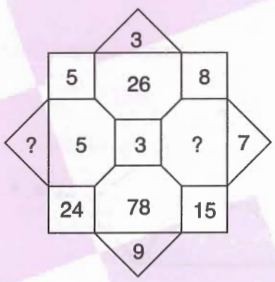
A) 28 B) 42 C) 56 D) 70 E) 140

26.



A) 8 B) 17 C) 15 D) 18 E) 71

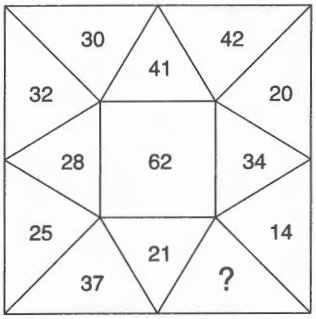
27.



A) 20,15 B) 21,14 C) 20,14
D) 21,16 E) 21,15

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28.

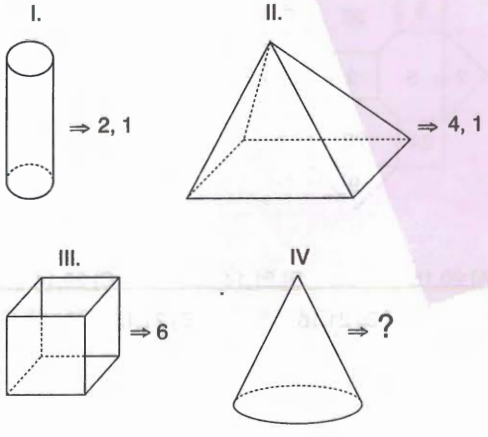


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

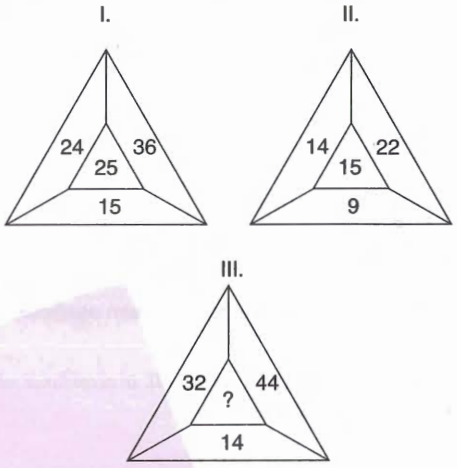
A) 26 B) 32 C) 48 D) 54 E) 58

29.



A) 1 B) 1,1 C) 2,1 D) 2 E) 1,2,1

30.

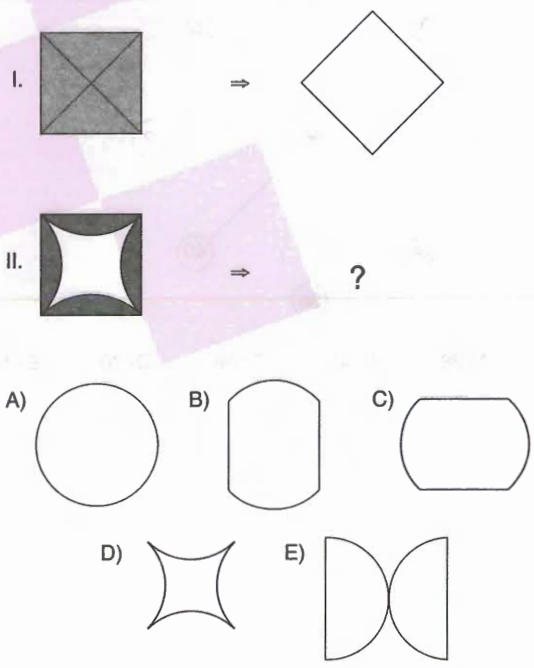


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

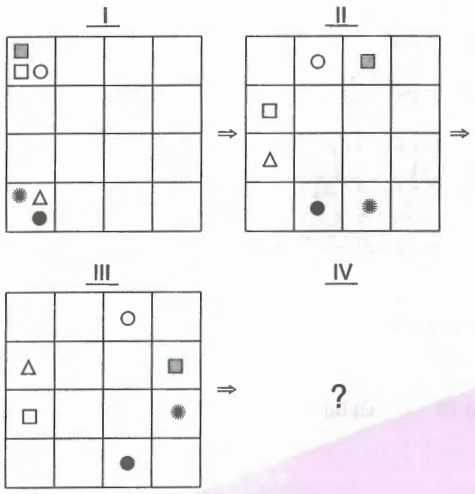
What does the question mark stand for in the figure above?

A) 18 B) 21 C) 24 D) 30 E) 34

31.



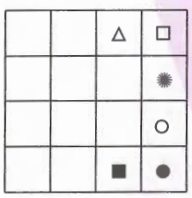
32.



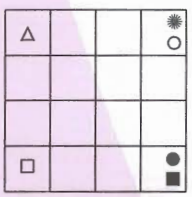
Yukarıdaki şekil dizisinde soru işaretinin yerine hangi şekil gelmelidir?

Which figures does the questions mark stand for in the figure sequence above?

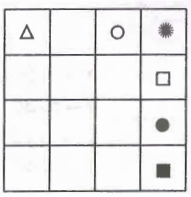
A)



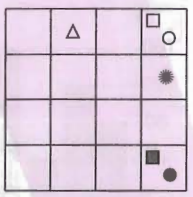
B)



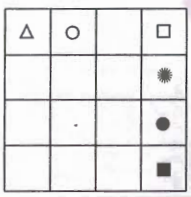
C)



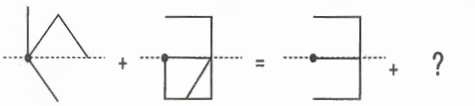
D)



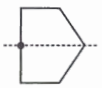
E)



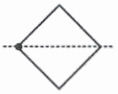
33.



A)



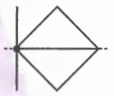
B)



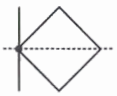
C)



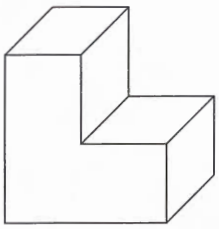
D)



E)



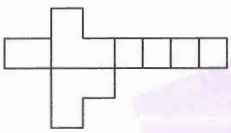
34.



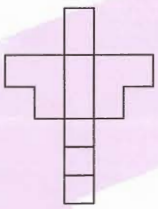
Aşağıdaki şekillerden hangisi yukarıdaki şeklin açılmış halidir?

Which of the followings is open formed of given shape above?

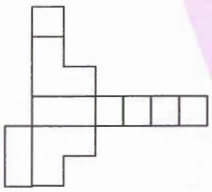
A)



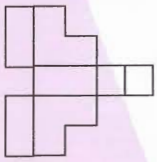
B)



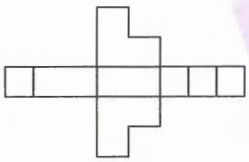
C)



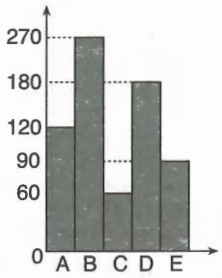
D)

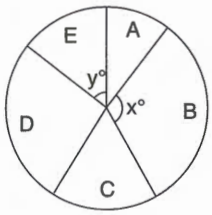


E)



35.

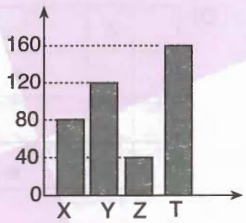




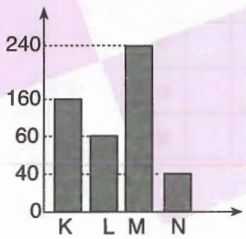
⇒ x+y = ?

A) 75 B) 90 C) 135 D) 180 E) 225

36.



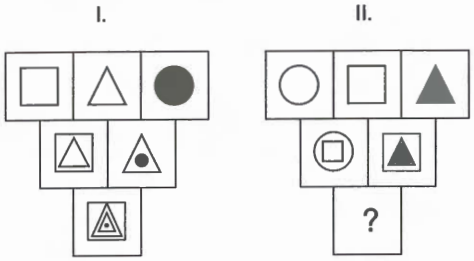
⇒ X→ % 20
Y→ % 30
Z→ % 10
T→ % 40



⇒ K→ ?
L→ ?
M→ ?
N→ ?

	K	L	M	N
A)	%24	%18	%42	%16
B)	%32	%12	%40	%16
C)	%24	%20	%40	%16
D)	%16	%40	%20	%24
E)	%32	%12	%48	%8

37.

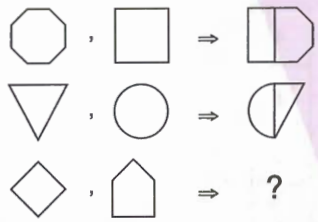


I. şekilde belirlenen ilişkiye göre, II. şekli aşağıdakilerden hangisi tamamlar?

Given the relationship established in I, which of the figures below completes II?

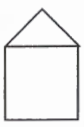
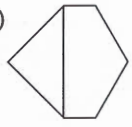
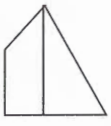
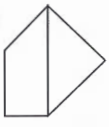
A) 
B) 
C) 
D) 
E) 

38.

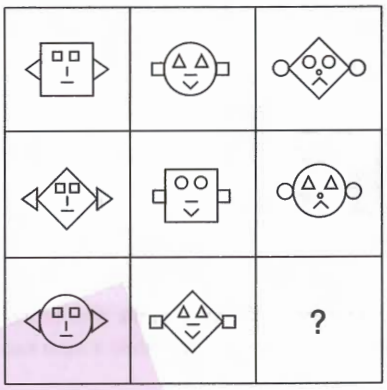


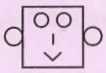
I. ve II. satırlarda belirlenen ilişkiye göre III. satırı aşağıdakilerden ahngisi tamamlar?

Which of the alternatives below completes III in accordance with the relationship established in I and II?

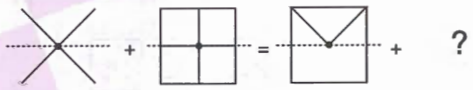
A) 
B) 
C) 
D) 
E) 

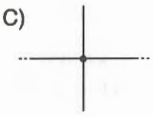
39.



A) 
B) 
C) 
D) 
E) 

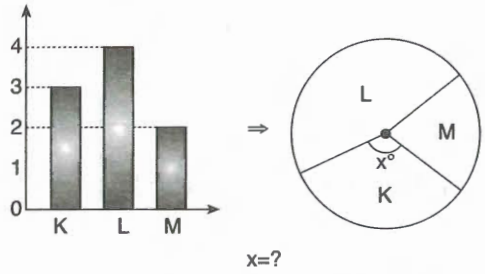
40.



A) 
B) 
C) 
D) 
E) 

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41.

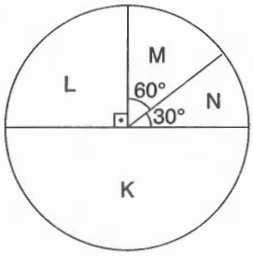


Yukarıdaki sütun grafik ile daire grafik aynı bilgileri göstermektedir. Buna göre, daire grafikteki x açısı kaç derecedir?

The bar ande circle diagrams above describe the same data. What is the measure of the angle x, in degrees, in the circle diagram?

A) 90 B) 100 C) 120 D) 150 E) 160

43.



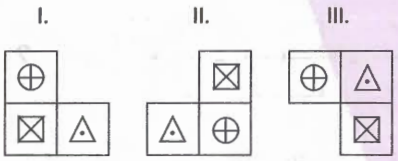
K : L: M : N = ?

Yukarıdaki daire grafikte verilen bilgilere göre, K:L:M:N oranı nedir?

Given the information in the circle diagram above, what is the ratio K:L:M:N?

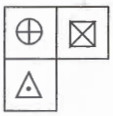
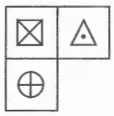
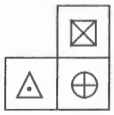
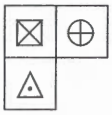
A) 4:3:2:1 B) 5:3:1:2 C) 6:3:2:1
D) 4:4:3:2 E) 6:2:3:1

42.



Yukarıdaki şekil dizisinde soru işaretinin yerine hangi şekil gelmelidir?

Which figures does the questions mark stand for in the figure sequence above?

A) 
B) 
C) 
D) 
E) 

44.

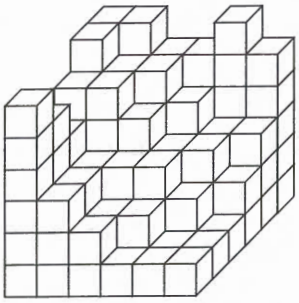


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 18 B) 20 C) 23 D) 25 E) 28

45.



Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above?

A) 118 B) 120 C) 121 D) 123 E) 125

46. $\frac{(n+1)!\cdot(n-2)!}{n!\cdot(n-1)!} = 2 \Rightarrow n = ?$

A) 5 B) 4 C) 3 D) 2 E) 1

47. $\sqrt{162} - \sqrt{72} + \sqrt{50} - \sqrt{32} = ?$

A) $10\sqrt{2}$ B) $8\sqrt{2}$ C) $6\sqrt{2}$

D) $4\sqrt{2}$ E) 0

48. $\sqrt{61 + \sqrt{5 + \sqrt{11 + \sqrt{23 + \sqrt{4}}}}} = ?$

A) 3 B) 4 C) 8 D) 9 E) 12

49. $\sqrt{(3-\sqrt{5})^2} - \sqrt{(\sqrt{5}-4)^2} - \sqrt[3]{-8} = ?$

A) $5 - 2\sqrt{5}$ B) $9 - 2\sqrt{5}$ C) 0

D) 1 E) 2

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50. $\{[B \cap (A \cap B)']' \cap (A' \cup B')\}' = ?$

A) Ø B) A C) B

D) $(A \setminus B)'$ E) $(B \setminus A)'$

51. $a, b \in R$

P(x) polinom *(polynomial)*

$$P(x) = \frac{x^3 - ax^2 + bx - 6}{x^2 - x - 6} \Rightarrow a - 2b = ?$$

A) –14 B) –7 C) 0 D) 7 E) 14

52. $\int \frac{6x^4 + x^3}{x^3} dx = ?$

A) $6x^2 + x + c$ B) $3x^2 + x + c$ C) $x^2 + x + c$

D) $\frac{x^2}{2} + x + c$ E) $x + 1$

53. $a, b \in R$

$$\int (4ax^3 - 3bx^2 + 2x)dx = ?$$

A) $x^4 - x^3 + x^2 + c$ B) $ax^3 - bx^2 + x + c$

C) $\frac{x^4}{a} - \frac{x^3}{b} + x^2 + c$ D) $ax^2 - bx + 2 + c$

E) $ax^4 - bx^3 + x^2 + c$

54.

$$A = \begin{bmatrix} \sqrt{18} & 1 \\ 0 & -4 \end{bmatrix}$$

$$B = \begin{bmatrix} -\sqrt{2} & 2 \\ 1 & \log_2 y \end{bmatrix}$$

$$C = \begin{bmatrix} 2^x & 3 \\ 1 & -2x \end{bmatrix}$$

$A + B = C$

$\Rightarrow x + y = ?$

A) $\frac{7}{2}$ B) 3 C) $\frac{5}{2}$ D) 2 E) $\frac{3}{2}$

55. $\frac{a}{b} = \frac{c}{d} = 3 \Rightarrow \left(\frac{d+c}{c}\right) \cdot \left(\frac{a}{b-a}\right) = ?$

A) –2 B) –1 C) 1 D) 2 E) 3

56. $1+2+3+4+\ldots+20+21=x$

$1+3+5+7+\ldots+19+21=y$

$\Rightarrow x-y=?$

A) 0 B) 55 C) 110 D) 220 E) 270

57. $(551)_6-(352)_6=(abc)_6$

$\Rightarrow abc=?$

A) 155 B) 154 C) 153 D) 145 E) 105

58. $a=\frac{7}{9}$ $b=\frac{9}{11}$ $c=\frac{13}{11}$ $d=\frac{15}{13}$

$\Rightarrow a, b, c \quad ?<?<?<?$

A) $a<b<c<d$ B) $b<a<d<c$

C) $b<a<c<d$ D) $a<b<d<c$

E) $c<d<a<b$

59. $\frac{a+4}{b-2}=0$

$a\cdot c\cdot b-2\cdot a\cdot c+4\cdot b-8=0$

$\Rightarrow a+c=?$

A) -4 B) -3 C) -2 D) -1 E) 0

60. $\frac{0,48}{0,012}-\frac{0,39}{0,13}+\frac{0,03}{0,9}-\frac{0,007}{0,21}=?$

A) 28 B) 29 C) 33 D) 37 E) 41

61. $4x^2+12xy+9y^2+z^2+2z+1=0$

$\Rightarrow 2x+3y+z=?$

A) $-\frac{3}{2}$ B) -1 C) 0 D) $\frac{2}{3}$ E) $\frac{3}{2}$

62. $\frac{a}{b}=\frac{c}{d}=\frac{e}{f}$

$\Rightarrow \frac{\left(\frac{a}{b}.\frac{c}{d}\right)+\left(\frac{e}{f}.\frac{a}{b}\right)}{\left(\frac{a+c}{b+d}\right)^2}=?$

A) 1 B) 2 C) 3 D) 4 E) 8

63. $a, c \in Z^+$

$\begin{array}{r|l} a & c \\ \hline - & 9 \\ \hline 6 & \end{array}$

$\Rightarrow \min(a) = ?$

A) 15 B) 60 C) 69 D) 72 E) 87

64. $\frac{(2a^{2n})^2}{(2a^n)^3}=2 \Rightarrow a^n=?$

A) 16 B) 8 C) 4 D) 2 E) 1

65. $2x+4+3x=5(x-1)$

$\Rightarrow$ S.S. = ?

A) {–1} B) {0} C) {1} D) Ø E) R

66. $\left(\sum_{i=1}^{4} x_i = x_1+x_2+x_3+x_4\right)$

$\left||x-2|-7\right|=5$

$\Rightarrow \sum x = ?$

A) 8 B) 10 C) 14 D) 20 E) 28

67. $f(x)=3^{x+2} \Rightarrow f(x-1)=?$

A) $\frac{f(x)}{9}$ B) $\frac{f(x)}{3}$ C) 3f(x)

D) 9f(x) E) 81f(x)

68. $2x^2 + 5x - 11 = 0$ S.S. $= \{x_1, x_2\}$

$\Rightarrow \frac{x_1}{x_2} + \frac{x_2}{x_1} = ?$

A) $-\frac{69}{11}$ B) $-\frac{69}{22}$ C) $-\frac{22}{53}$ D) $\frac{71}{23}$ E) $\frac{79}{44}$

69. $\tan 27° \cdot \cot 27° + \sin 51° - \frac{1}{\sec 39°} + \frac{\sin 11°}{\sin 169°} = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

70. $\log_3 2 = a \Rightarrow \frac{\log_6 7}{\log_2 7} = ?$

A) $a + 1$ B) $\frac{a+1}{a}$ C) $\frac{a-1}{a}$ D) $a - 1$ E) $\frac{a}{a+1}$

71. $\lim_{x \to 3} \frac{\sin(x-3)}{(x^2-9)} = ?$

A) 1 B) $\frac{1}{2}$ C) $\frac{1}{3}$ D) $\frac{1}{6}$ E) $\frac{1}{9}$

72. $\lim_{x \to \infty} \left(\sqrt{x^2+8x+11} - \sqrt{x^2-6x-21}\right) = ?$

A) -1 B) 3 C) 4 D) 7 E) 14

73. $f(x) = \ln(\cos x) \Rightarrow f'\left(\frac{\pi}{4}\right) = ?$

A) -1 B) $-\frac{\sqrt{3}}{2}$ C) $\frac{\sqrt{2}}{2}$ D) 1 E) $\frac{1}{2}$

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74. $y = f(x)$

$x^2y + yx^3 = -xy^2$

$\Rightarrow \frac{dy}{dx} = ?$

A) $\frac{x^3+x^2+2xy}{-2xy-3yx^2-y^2}$

B) $\frac{x^3+x^2-2xy}{2xy+3yx}$

C) $-\frac{2xy+3x^2}{x^3+x^2}$

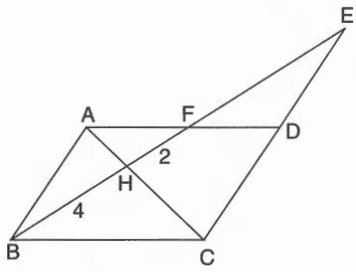
D) $\frac{x^3+x^2+2xy}{2xy-3xy}$

E) $-\frac{2xy+3yx^2+y^2}{x^2+x^3+2xy}$

75. $\left.\begin{matrix} y = \sin t \\ x = t+1 \end{matrix}\right\} \Rightarrow \frac{dy}{dx} = ?$

A) $\cos(x-1)$ B) $\cos(x+1)$ C) $\cos x$ D) $\sin(x-1)$ E) $-\sin(x+1)$

76.



ABCD paralelkenar (*paralellogram*),

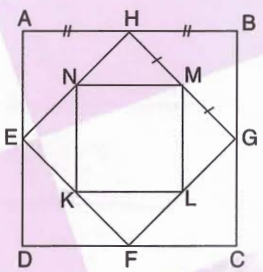
$|BH| = 4$ br

$|HF| = 2$ br

$\Rightarrow |EF| = ?$

A) 4 B) 5 C) 6 D) 8 E) 12

77.



ABCD, EFGH, KLMN kare (*square*)

$|AH| = |HB|$

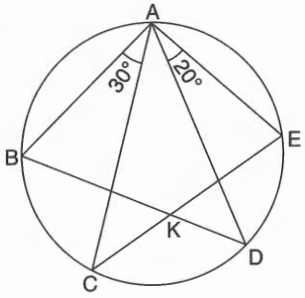
$|HM| = |MG|$

$A(KLMN) = 4$ br^2

$\Rightarrow A(ABCD) = ?$

A) 8 B) 12 C) 16 D) 20 E) 24

78.



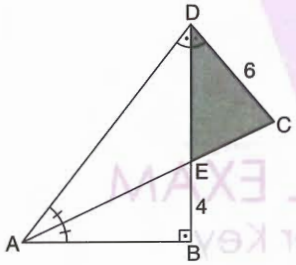
$m(\widehat{BAC}) = 30°$

$m(\widehat{DAE}) = 20°$

$\Rightarrow m(\widehat{EKD}) = ?$

A) 40 B) 45 C) 50 D) 55 E) 60

79.



$m(\widehat{DAC}) = m(\widehat{CAB})$

$m(\widehat{ADB}) = m(\widehat{BDC})$

$[DB] \perp [AB]$

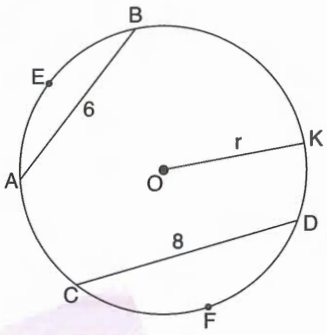
$|DC| = 6$ br

$|EB| = 4$ br

$\Rightarrow A(EDC) = ?$

A) 10 B) 12 C) 16 D) 18 E) 24

80.



O, Merkez (*center*)

$m(\widehat{AEB}) + m(\widehat{CFD}) = 18$

$|AB| = 6$ br

$|CD| = 8$ br

$|OK| = r$

$\Rightarrow r = ?$

A) 4 B) 5 C) 8 D) 9 E) 10

DENEME SINAVI 15 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	E	C	C	C	B	B	E	C	C	D	B	D	D	C	C	C	C	A	C

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	C	D	E	D	B	E	C	B	D	A	B	E	E	D	E	C	E	B	A

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	E	C	E	E	C	D	C	D	C	E	B	E	A	A	C	A	D	B	D

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
B	B	C	C	D	A	B	B	E	E	D	D	A	E	A	C	C	C	B	B

DENEME SINAVI 16
TRIAL EXAM 16

1.

CACIK	21719
SICAK	74518
KUCAK	71812
SAKAR	83518
RASAT	51548

⇒ SAKAR = ?

A) 21719 B) 74518 C) 71812 D) 83518 E) 51548

2.

TASA	▲☆
KATA	●■
SANA	▲■
SAKA	●▲
TAKA	■●

⇒ TAKA = ?

A) ▲☆ B) ●■ C) ▲■ D) ●▲ E) ■●

3.

MOR	521
SAT	397
ZİL	125
TAS	846
ROM	793

⇒ ZİL = ?

A) 521 B) 397 C) 125 D) 846 E) 793

4.

123452
212582
521503
236272
127943

⇒ 127943 = ?

A) MANİSA B) MARDİN C) SAMSUN D) ANKARA E) AMASYA

5.

K K K
K L L
L K K
K K L
\+
1 L L L

K = ?

A) 1 B) 2 C) 3 D) 4 E) 5

6.

AB	AB	AB	KLM
x K	x L	x M	x AB
252	294	336	?

A) 36792 B) 36414 C) 33812 D) 32256 E) 28476

7.

KL	KL	KL
x P	x M	x PM
256	224	?

A) 2784 B) 2496 C) 2180 D) 1968 E) 480

8.

KLM	LM	
NPR	+ PR	
+ STV	99	⇒ T+V = ?
1656		

A) 8 B) 9 C) 10 D) 11 E) 12

9. I. 83 ■ ⇒ 5,11
II. ● 68 ⇒ 48
III. ● 85 ■ ⇒ 40 ■ ⇒ 4,4
IV. ● 98 ■ ⇒ ?

A) 5,6 B) 6,9 C) 5,9 D) 9,12 E) 5,12

10. I. 5 ◈ 2 = 12
II. 3 ◈ 2 = 8
III. 4 ◈ 3 = 15
IV. 6 ◈ 5 = ?

Yukarıdaki ilk üç eşitlik ◈ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ◈ is unchanged. What does the question mark stand for in the fourth equation?

A) 25 B) 30 C) 35 D) 36 E) 42

11. I. 2 ▲ 4 = 32
II. 5 ▲ 2 = 20
III. 4 ▲ 3 = 36
IV. 3 ▲ 5 = ?

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 15 B) 28 C) 45 D) 75 E) 80

12. I. $a \diamond b = \frac{a+b}{3}$
II. $a \blacktriangle b = \sqrt{a-b}$
III. (27 ◈ 9) ▲ (13 ◈ 11) = ?

Yukarıdaki iki eşitlik ◈ ve ▲ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ◈ and ▲ are unchanged. What is the solution of the third equation?

A) 1 B) 2 C) 3 D) 4 E) 5

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13.

+	K	L	M
K		3 · K	
L			
M	4 · K		

x	K	L	M
K	C		
L		A	
M			B

$\Rightarrow \frac{B-A}{C} = ?$

Yukarıdaki toplama ve çarpma tablolarında K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre $\frac{B-A}{C}$ kaçtır?

In the summation and multiplication tables above, the letters K, L and M each stand for a specific number. What is the value of $\frac{B-A}{C} = ?$

A) 2 B) 4 C) 5 D) 9 E) 10

14.

+	a	b	c
a			
b	c	$\frac{c}{2}$	
c			4b + 8

$\Rightarrow \frac{c-b}{a} = ?$

Yukarıdaki toplama tablolarında a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre $\frac{c-b}{a}$ kaçtır?

In the summation tables above, the letters a, b and c each stand for a specific number. What is the value of $\frac{c-b}{a}$*?*

A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{2}{3}$ D) $\frac{3}{4}$ E) 1

15.

x	a	b	c
a		54	
b			24
c	6 · b		

$\Rightarrow a+b+c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a+b+c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a+b+c?

A) 14 B) 16 C) 17 D) 19 E) 23

16.

●	7	8
3	8	10
5	4	A

■	2	3
4	8	13
5	9	B

$\Rightarrow B - A = ?$

Yukarıdaki ● ve ■ tablolarına göre B – A kaçtır?

According to the ● and ■ tables, what is the rate of B – A?

A) 4 B) 6 C) 8 D) 10 E) 12

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17.

❖	a	b	c	d	e
a	c	d	e	a	b
b	d	e	a	b	c
c	e	a	b	c	d
d	a	b	c	d	e
e	b	c	d	e	a

☆	a	b	c	d	e
a	a	b	c	d	e
b	b	c	d	e	a
c	c	d	e	a	b
d	d	e	a	b	c
e	e	a	b	c	d

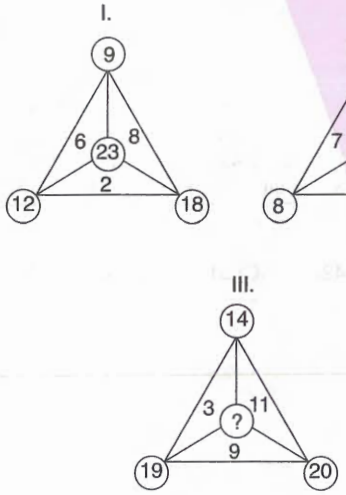
$\Rightarrow \big((a❖e)☆(d❖c)☆(b❖(a❖d))\big)☆? = b$

Yukarıdaki tablolarda ❖ ve ☆ işlemlerinin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ❖ and ☆ operation established in the tables above, which of the following does the question mark stand for?

A) a B) b C) c D) d E) e

18.

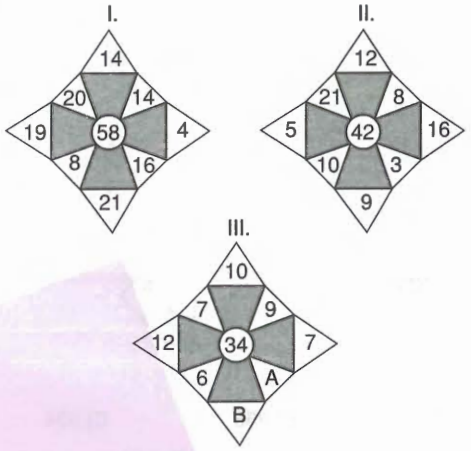


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 22 B) 24 C) 26 D) 28 E) 30

19.



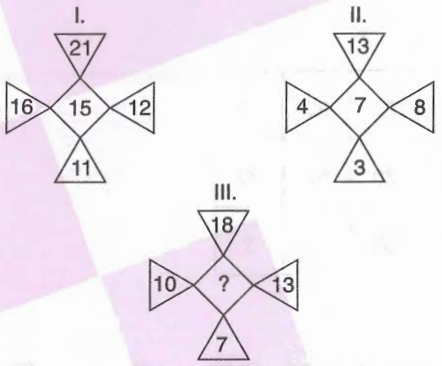
$\Rightarrow A + B = ?$

Yukarıdaki şemada belirlenen kurala göre, A+B kaçtır?

Given the relationship established in the diogram above, what is the valve of A+B?

A) 8 B) 12 C) 17 D) 19 E) 23

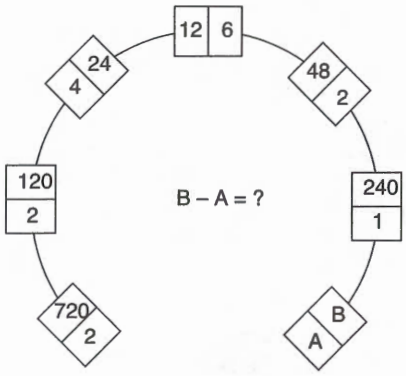
20.



A) 9 B) 10 C) 11 D) 12 E) 14

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21.



A) 719 B) 856 C) 934 D) 1439 E) 1441

22.

12	25	20	19
16	30	50	32
21	33	6	?

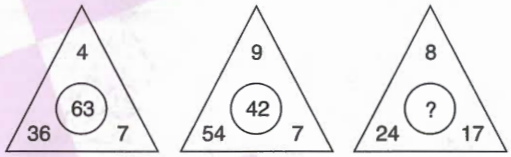
A) 14 B) 18 C) 20 D) 28 E) 34

23.

4	2	6	0
27	3	29	1
10	5	13	2
30	5	31	?

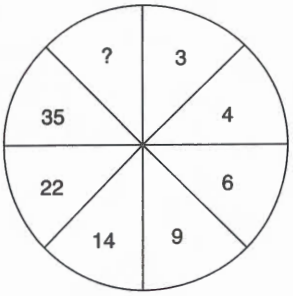
A) 3 B) 4 C) 5 D) 6 E) 7

24.



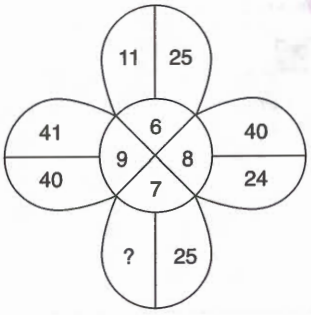
A) 34 B) 42 C) 51 D) 62 E) 74

25.



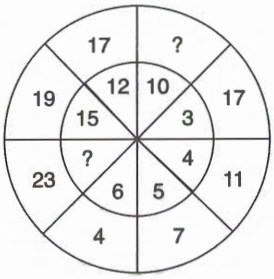
A) 39 B) 44 C) 49 D) 56 E) 62

26.



A) 24 B) 14 C) 21 D) 49 E) 42

27.



A) 4,16 B) 36,16 C) 100,20 D) 17,20 E) 16,20

28.

I. (43) = 25 (24) = 20

II. △68 = 48 △37 = 21

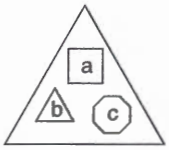
III. (△47) = (28) = 68

IV. (△26) = ?

A) 1 B) 5 C) 64 D) 78 E) 144

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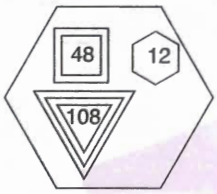
29.

I. 

$\Rightarrow \left(\frac{a}{4}+\frac{b}{3}+\frac{c}{8}\right)\cdot 3$

II. 

$\Rightarrow 24$

III. 

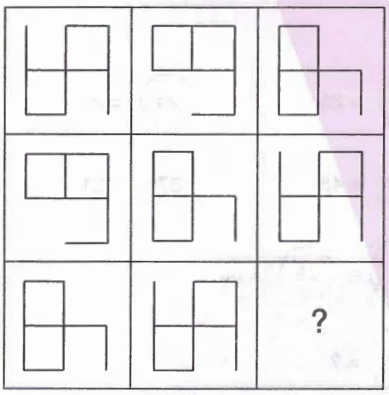
$\Rightarrow ?$

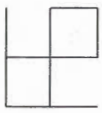
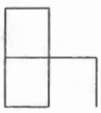
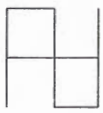
I. ve II. satırda belirlenen ilişkiye göre, III. satırı aşağıdakilerden hangisi tamamlar?

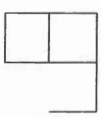
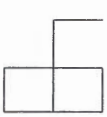
Which of the numbers below completes III, in accordance with the relationship established in I and II?

A) 36 B) 42 C) 54 D) 63 E) 72

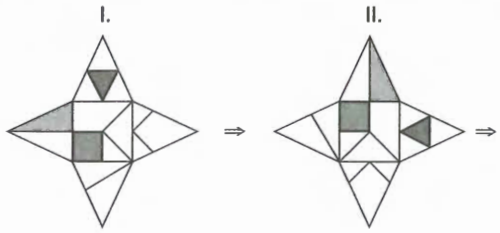
30.

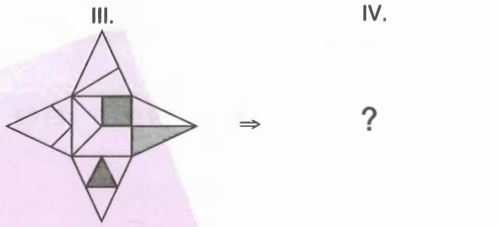


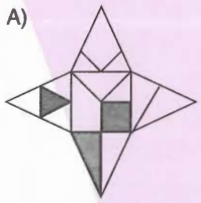
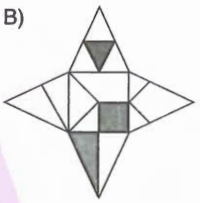
A)  B)  C) 

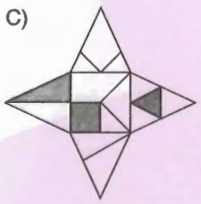
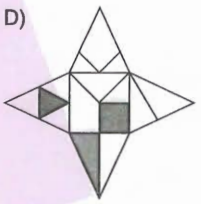
D)  E) 

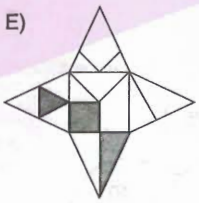
31.



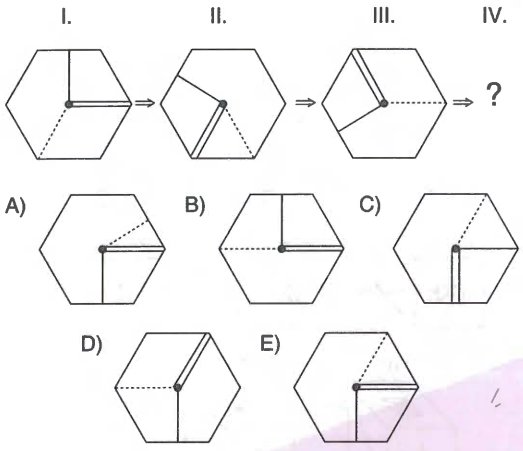


A)  B) 

C)  D) 

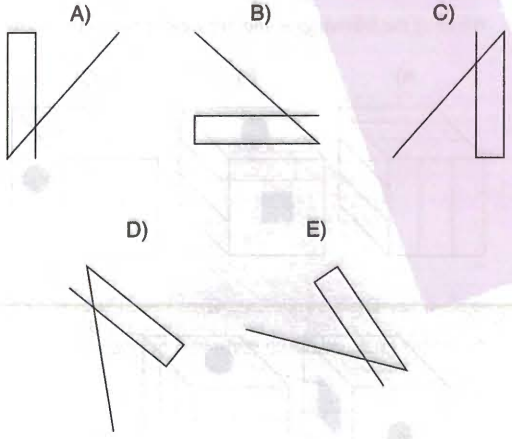
E) 

32.



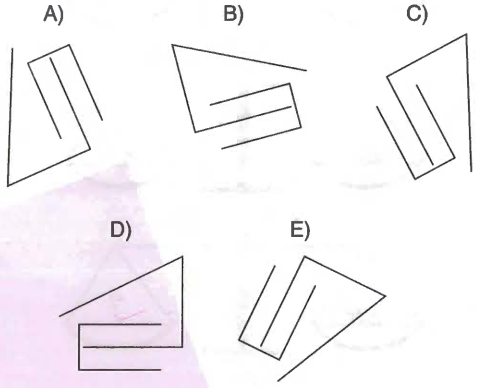
33. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which of the followings is different?

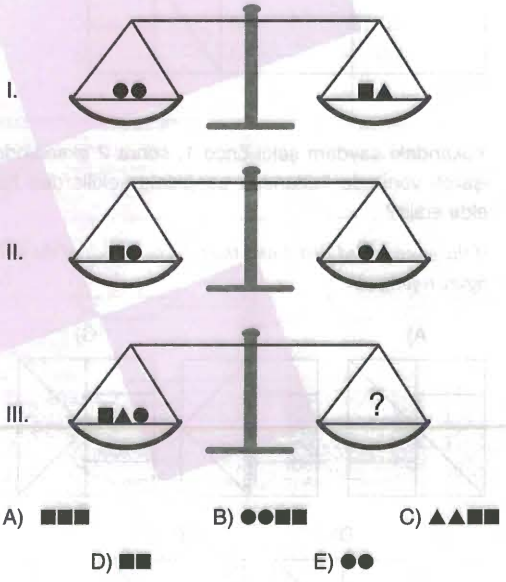


34. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which of the followings is different?

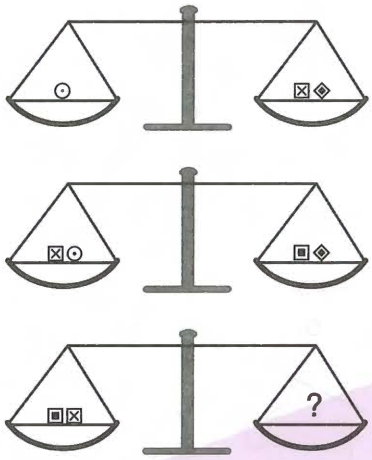


35.



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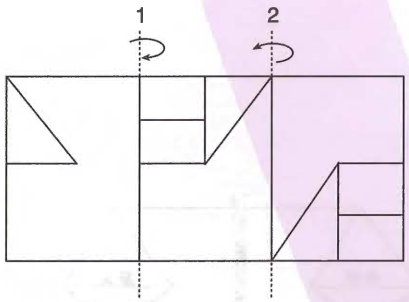
36.



A) ⊠⊠⊙ B) ⊙⊙⊠ C) ⊠▣◈

D) ▣▣ E) ⊠⊠⊠

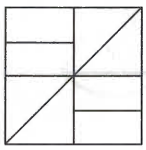
37.



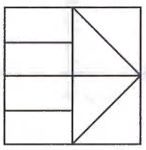
Yukarıdaki saydam şekil önce 1, sonra 2 ekseninden ok işareti yönünde katlanırsa aşağıdaki şekillerden hangisi elde edilir?

If the given folded first 1 and than 2 axis, which of the following figure is formed?

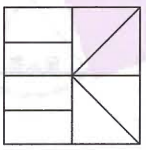
A)



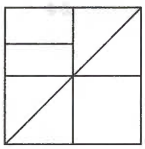
B)



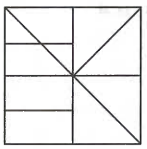
C)



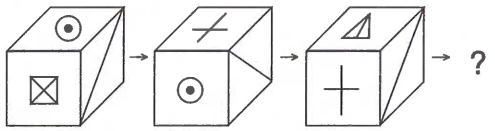
D)



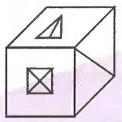
E)



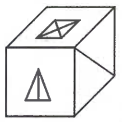
38.



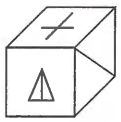
A)



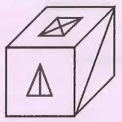
B)



C)



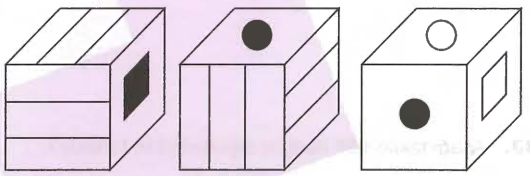
D)



E)



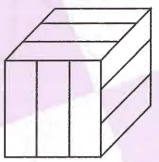
39.



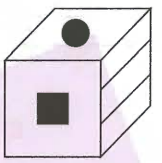
Aşağıdakilerden hangisi yukarıda verilen kübün diğer bir görünümüdür?

Which of the followings is another view of given cube above?

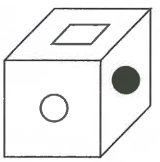
A)



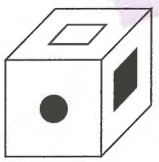
B)



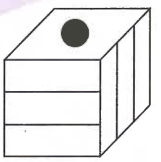
C)



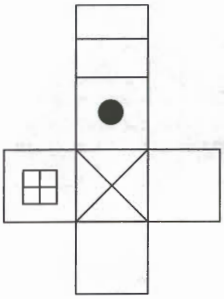
D)



E)

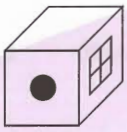


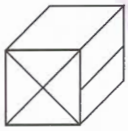
40.

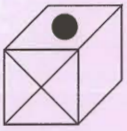


A) 

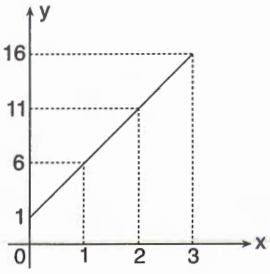
B) 

C) 

D) 

E) 

41.

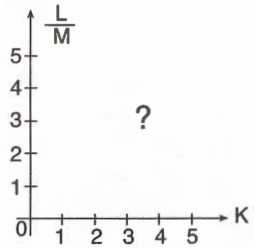


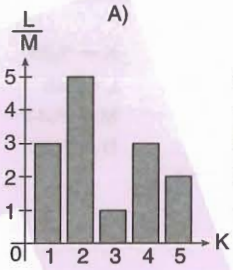
$x = 24 \Rightarrow y = ?$

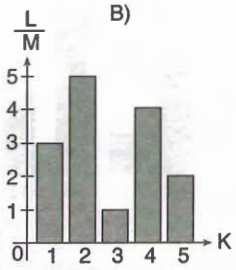
A) 85 B) 97 C) 121 D) 133 E) 141

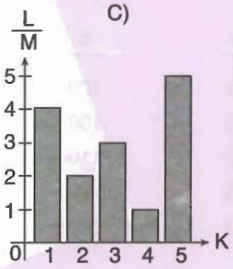
42.

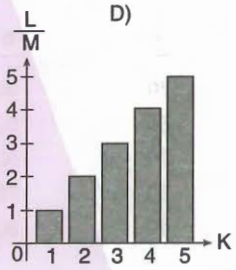
K	L	M
1	6	2
2	5	1
3	4	4
4	3	1
5	6	3

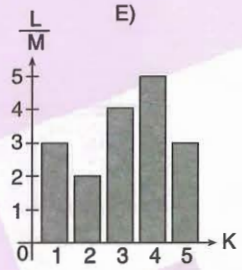


A) 

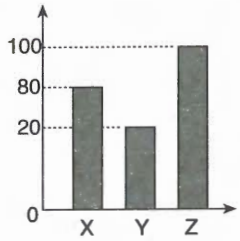
B) 

C) 

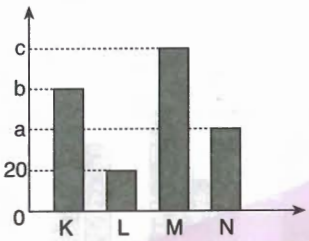
D) 

E) 

43.



X ⇒ %40
Y ⇒ %10
Z ⇒ %50

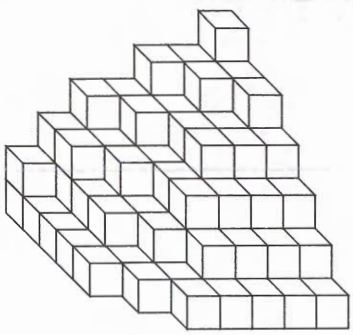


K ⇒ %28
L ⇒ %8
M ⇒ %44
N ⇒ %20

⇒ a = ? , b = ? , c = ?

	a	b	c
A)	70	90	120
B)	50	80	100
C)	70	50	110
D)	50	70	110
E)	40	80	120

44.

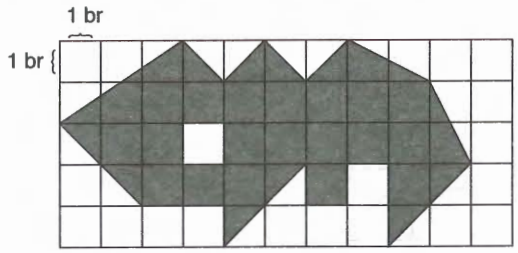


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above?

A) 120 B) 123 C) 125 D) 127 E) 129

45.



Şekildeki taralı bölgenin alanı kaç br^2 dir?

What is the area of shaded field of the given figure above?

A) 25 B) 26 C) 27 D) 28 E) 29

46. $\frac{n!}{(n-2)!\cdot 2!} = 28 \Rightarrow n = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

47. $\frac{(a^3+a^2b)^2}{(a^3-a^2b)^2} : \frac{(a+b)^2}{a^2-2ab+b^2} = ?$

A) a B) a^2 C) a+b D) 1 E) $\frac{1}{a}$

48. $\left.\begin{array}{l}\frac{a}{b}-\frac{4}{b}=2\\ a\cdot b=7\end{array}\right\} \Rightarrow a^2+4b^2=?$

A) 41 B) 42 C) 44 D) 46 E) 47

49. $1+\cfrac{8}{2+\cfrac{4}{1+\cfrac{1}{x-1}}}=3 \Rightarrow x=?$

A) 6 B) 5 C) 4 D) 3 E) 2

50. $a<c<b$

$\Rightarrow \dfrac{|a-b|-|b-c|+|a-c|}{|2a-2c|}=?$

A) -1 B) 0 C) 1 D) 3 E) 5

51. $a,b,c,d \in R^+$

$P(x)$, $Q(x)$ Polinom *(Polynomial)*

$P(x) = (a+b)^2 + (c+d)x^2 + (2c+3d)x^3 + 1$

$Q(x) = 3x^2 + 8x^3 + 26$

$P(x) = Q(x) \Rightarrow a+b+c\cdot d = ?$

A) -5 B) -2 C) 5 D) 7 E) 8

52. $x-\sqrt{x+9}=3 \Rightarrow$ S.S. = ?

A) {0} B) {– 7} C) {7}
D) {0, 7} E) {0, – 7}

53. $m,n \in R$

$x^2-(m-n)x-m\cdot n=0$

$\Rightarrow$ S.S. = ?

A) {m} B) {n} C) {m, n}
D) {m, – n} E) {– m, n}

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54. $\begin{vmatrix} \sin x & \cos x \\ -\cos x & \sin x \end{vmatrix} = ?$

A) –1 B) 0 C) 1 D) 2 E) 3

55. $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \Rightarrow A^T = ?$

A) $\begin{bmatrix} 2 & 1 \\ 4 & 3 \end{bmatrix}$ B) $\begin{bmatrix} 3 & 4 \\ 1 & 2 \end{bmatrix}$ C) $\begin{bmatrix} 1 & 3 \\ 4 & 2 \end{bmatrix}$

D) $\begin{bmatrix} 1 & 3 \\ 2 & 4 \end{bmatrix}$ E) $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$

56. $3^{m+2} + 3^{m+1} = 324$

$\Rightarrow m = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

57. $\dfrac{4a^2 - b^2}{8a^3 - b^3} : \dfrac{2a + b}{8a^2 + 4ab + 2b^2} = ?$

A) $\dfrac{a+b}{a-b}$ B) 1 C) a+b

D) 2 E) $\dfrac{a-b}{a+b}$

58. $\dfrac{\sqrt[3]{81} + \sqrt[3]{24} - \sqrt[3]{375}}{\sqrt{15 + 5\sqrt{8}}} = ?$

A) – 5 B) – 3 C) 0 D) 2 E) 8

59. $\log_3 108 = k$

$\Rightarrow \log_3 2 = ?$

A) $\dfrac{k-3}{2}$ B) $\dfrac{k-2}{3}$ C) $\dfrac{k+2}{3}$

D) $\dfrac{k+3}{2}$ E) $\dfrac{3-k}{2}$

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60. $\sin x - \cos x = k$

$\Rightarrow \sin(2x) = ?$

A) $1 - k$ B) $k^2 - 1$ C) $1 - k^2$

D) $\sqrt{k} - 1$ E) $k - 1$

61. $3^{\log_3(x^2+2x+3)} = 2$

$\Rightarrow x = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

62. $\lim_{x \to -\infty} \left(4^x + 3^{\left(\frac{x^2+1}{x^2-1}\right)}\right) = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

63. $f: R \to R$

$f(x) = y$

$f(x) = x^2 - 4x + 8$

$\Rightarrow \min(y) = ?$

A) -1 B) 2 C) 4 D) 5 E) 8

64. $\left.\begin{matrix} y = t^2 + 1 \\ x = t - 1 \end{matrix}\right\} \Rightarrow \frac{dy}{dx} = ?$

A) $2x + 2$ B) $x + 1$ C) $\frac{x+1}{2}$

D) $\frac{x-1}{2}$ E) $x - 1$

65. $\int \frac{x}{x^2+3} dx = ?$

A) $\ln|x^2+3| + c$ B) $\frac{1}{2}\ln|x^2+3| + c$

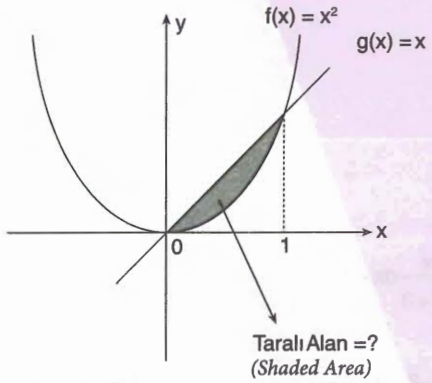
C) $2\ln|x^2+3| + c$ D) $-x^2 - 3x + c$

E) $x^2 + 3x + c$

66. $\int_{-1}^{2} (4x^3 + 2x)dx = ?$

A) 12 B) 14 C) 16 D) 18 E) 20

67.



A) $\frac{1}{12}$ B) $\frac{1}{6}$ C) $\frac{1}{3}$ D) $\frac{1}{2}$ E) $\frac{3}{7}$

68. $\int_{\frac{\pi}{4}}^{\frac{\pi}{2}} \sin x\, dx = ?$

A) $\frac{\sqrt{2}-1}{2}$ B) $-\frac{\sqrt{2}}{2}$ C) $\frac{1-\sqrt{2}}{2}$ D) $\frac{\sqrt{2}}{2}$ E) $\sqrt{2}$

69. $\frac{2^x + 2^{x+1} + 2^{x+2}}{2^{x+2} - 2^{x+1} - 2^x} = ?$

A) 3 B) 7 C) 2^{2x} D) 2^{-2x} E) 4

70. $\log_{\sqrt{2}} 27 \cdot \log_{25} \sqrt[3]{4} \cdot \log_9 125 = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

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71. $\left.\begin{matrix}\tan x = a \\ \cot x = b\end{matrix}\right\} \Rightarrow (a+b)^2-(a-b)^2 = ?$

A) 0 B) 1 C) 2 D) 3 E) 4

72. $8 + 13 + 18 + 23 + \ ... \ + 73 = K$

$\Rightarrow K = ?$

A) 557 B) 567 C) 573 D) 577 E) 583

73. $\dfrac{\sqrt[3]{8^5}\cdot\sqrt[4]{16^5}\cdot\sqrt[6]{64^5}}{2^{14}+2^{14}} = ?$

A) 1 B) 2 C) 4 D) 8 E) 16

74. $\left.\begin{matrix}f^{-1}(x) = 2x+5 \\ g(x) = \dfrac{x-2}{3}\end{matrix}\right\}$

$\Rightarrow (gof)(3) = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

75. A(–2, 1) B(4, 1) C(2, 6)

$\Rightarrow A(ABC) = ?$

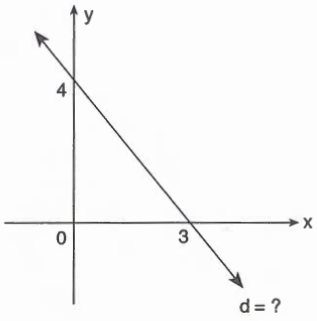
A) 10 B) 15 C) 20 D) 25 E) 30

76. $\dfrac{3^0+3^1+3^2}{3^3-3^2-3^1-3^0} = ?$

A) $\frac{13}{12}$ B) $\frac{14}{13}$ C) 1 D) $\frac{12}{13}$ E) $\frac{13}{14}$

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77.



A) $3x + 4y - 12 = 0$

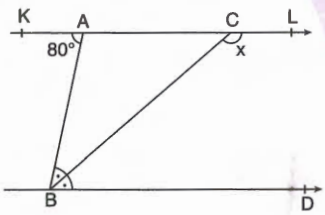
B) $4x + 3y - 12 = 0$

C) $-4x - y + 12 = 0$

D) $-4x + 3y + 12 = 0$

E) $2x - 3y - 12 = 0$

78.



[KL // [BD

$m(\widehat{KAB}) = 80°$

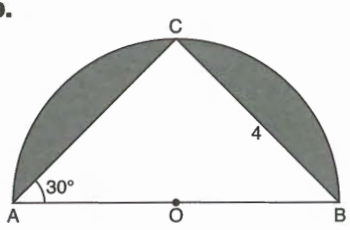
$m(\widehat{ABC}) = m(\widehat{CBD})$

$m(\widehat{BCL}) = x$

$\Rightarrow x = ?$

A) 125 B) 130 C) 135 D) 140 E) 160

79.



O, merkez (*center*)

$m(\widehat{CAB}) = 30°$

$|CB| = 4$ br

$\Rightarrow$ Taralı alanlar toplamı = ?

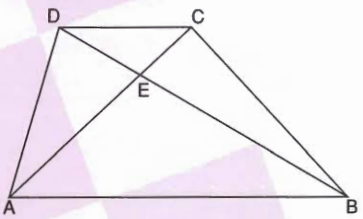
Sum of shaded area = ?

A) $8\pi - 8\sqrt{3}$ B) $4\pi - 4\sqrt{3}$

C) $16 - 16\sqrt{3}\,\pi$ D) $16\pi - 8\sqrt{3}$

E) $16\pi - 4\sqrt{3}$

80.



[DC] // [AB]

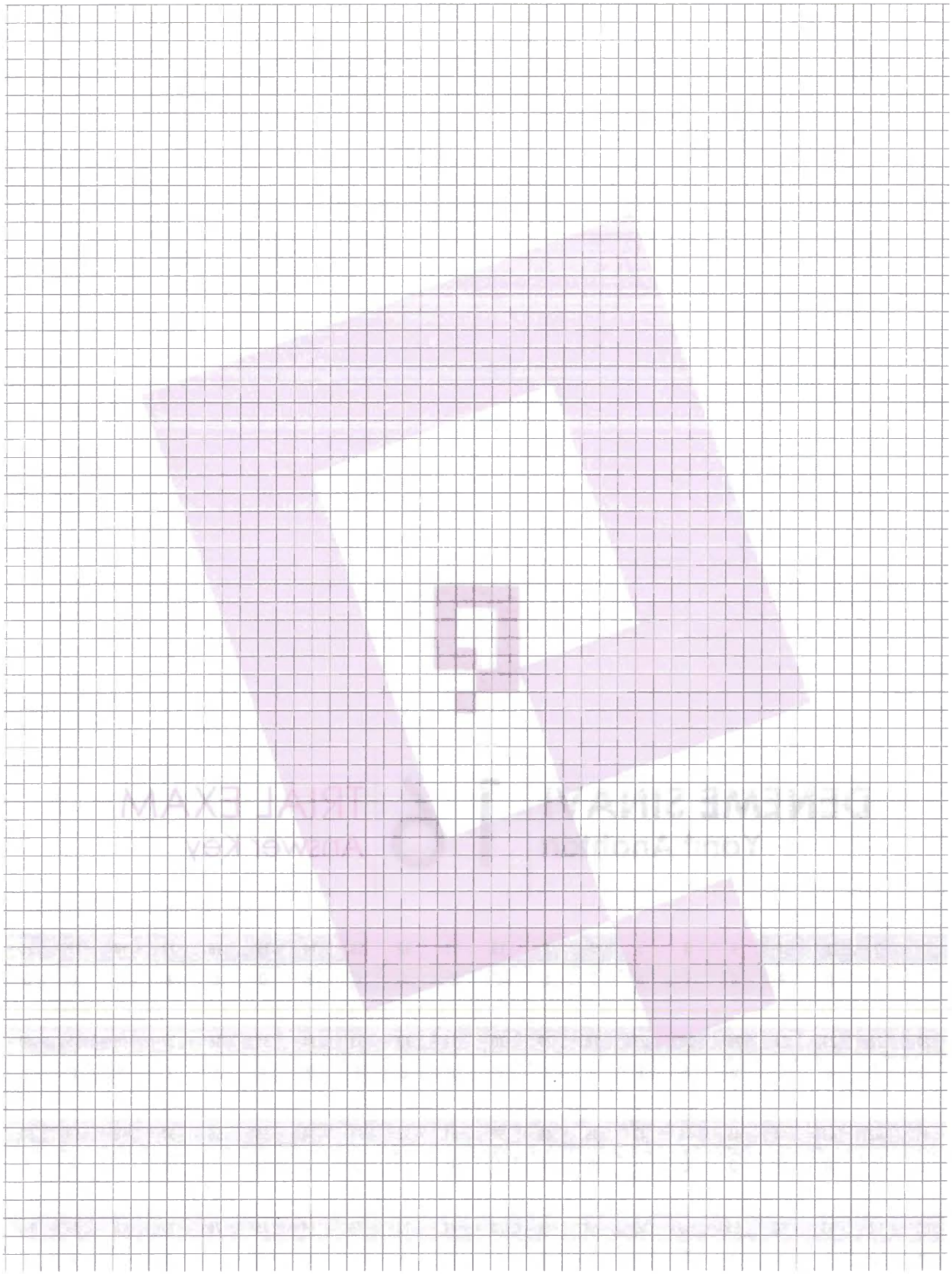
$|AB| = 3|CD|$

$A(CED) = 2$ br^2

$\Rightarrow A(ABCD) = ?$

A) 28 B) 32 C) 36 D) 40 E) 42

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DENEME SINAVI 16 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C	B	D	B	C	E	A	E	C	C	D	B	C	E	D	C	A	E	C	D

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	C	B	C	D	A	E	B	C	D	D	E	E	D	A	E	C	B	C	E

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	A	D	D	D	C	D	C	E	C	D	C	D	C	D	C	D	C	A	C

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
B	C	C	A	B	D	B	D	B	C	E	B	A	B	B	E	B	D	A	B

DENEME SINAVI 17
TRIAL EXAM 17

1.

21812	KOLYE
34794	KAVAK
25604	KEMAL
85671	VOLTA
24316	METRE

⇒ 85671 = ?

A) KOLYE B) KAVAK C) KEMAL
D) VOLTA E) METRE

2.

98672	ORMAN
86459	ARMUT
45689	MARUL
36480	MURAT
48651	TARİH

⇒ 86459 = ?

A) ORMAN B) ARMUT C) MARUL
D) MURAT E) TARİH

3.

ETKEN	80910
BANKA	15653
KETEN	14749
GENEL	24943
KURUL	47149

⇒ ETKEN = ?

A) 80910 B) 15653 C) 14749
D) 24943 E) 47149

4.

036410	LEZZET
632057	MESAFE
032017	MAHMUT
058395	ZAHMET
456657	MAZLUM

⇒ 036410 = ?

A) LEZZET B) MESAFE C) MAHMUT
D) ZAHMET E) MAZLUM

5.

$$\begin{array}{r} KLMN \\ LMN0 \\ MN00 \\ +\ N000 \\ \hline 25015 \end{array} \quad \Rightarrow \quad K = ?$$

A) 3 B) 4 C) 5 D) 6 E) 8

6.

$$\begin{array}{r} KLM \\ +\ KML \\ \hline 776 \end{array} \qquad \begin{array}{r} LK \\ KM \\ +\ ML \\ \hline ? \end{array}$$

A) 197 B) 199 C) 209 D) 219 E) 229

7.

$$\begin{array}{r} \bullet\bullet\bullet \\ \times\ 4L \\ \hline \bullet\bullet\bullet\bullet \\ +\ 2628 \\ \hline 2K594 \end{array} \quad \Rightarrow K + L = ?$$

A) 6 B) 8 C) 9 D) 11 E) 13

8.

$$\begin{array}{r|l} K & L \\ \hline - & L \\ \hline 0 & \end{array} \qquad \begin{array}{r|l} M & K \\ \hline - & L \\ \hline 0 & \end{array} \quad \Rightarrow K + L + M = ?$$

A) 8 B) 10 C) 12 D) 14 E) 16

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9. I. $14 \bullet 6 = 64$
II. $16 \bullet 11 = 25$
III. $13 \bullet 7 = 36$
IV. $24 \bullet 15 = ?$

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 39 B) 56 C) 78 D) 81 E) 109

10. I. $6 \blacktriangle 9 = 21$
II. $14 \blacktriangle 7 = 35$
III. $9 \blacktriangle 12 = 30$
IV. $7 \blacktriangle 8 = ?$

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 18 B) 20 C) 22 D) 25 E) 28

11. I. $12 \blacksquare 4 = 16$
II. $20 \blacksquare 11 = 18$
III. $19 \blacksquare 7 = 24$
IV. $17 \blacksquare 2 = ?$

Yukarıdaki ilk üç eşitlik ■ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ■ is unchanged. What does the question mark stand for in the fourth equation?

A) 20 B) 22 C) 26 D) 30 E) 34

12. I. $a \boxtimes b = 2 \cdot a + b^2$
II. $a \diamond b = 3 \cdot (a - b)^2$
III. $(5 \boxtimes 3) \diamond (7 \boxtimes 2) = ?$

Yukarıdaki iki eşitlik ☒ ve ❖ işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ☒ and ❖ are unchanged. What is the solution of the third equation?

A) 1 B) 3 C) 27 D) 48 E) 75

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13.

+	K	L	M	N
K		11		7
L			12	
M	9			
N				

⇒ N = ?

Yukarıdaki toplama tablosunda K, L, M ve N harfleri belli birer sayının yerine kullanılmıştır. Buna göre N kaçtır?

In the summation table above, the letters K, L, M and N each stand for a specific number. What is the value of N?

A) 1 B) 2 C) 3 D) 4 E) 5

14.

x	K	L	M
K		M	
L			20
M	50		

⇒ K + L + M = ?

Yukarıdaki toplama tablosunda K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre K+L+M kaçtır?

In the summation table above, the letters K, L and M each stand for a specific number. What is the value of K+L+M?

A) 17 B) 19 C) 21 D) 23 E) 25

15.

x	K	L	M
K		48	
L			36
M	108		

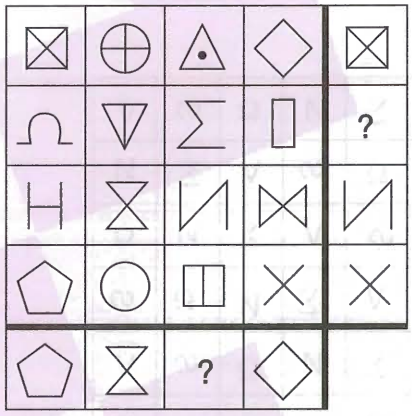
⇒ K + L + M = ?

Yukarıdaki çarpma tablosunda K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre K+L+M kaçtır?

In the multiplication table above, the letters K, L and M each stand for a specific number. What is the value of K+L+M?

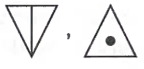
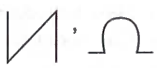
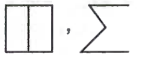
A) 19 B) 21 C) 23 D) 25 E) 27

16.



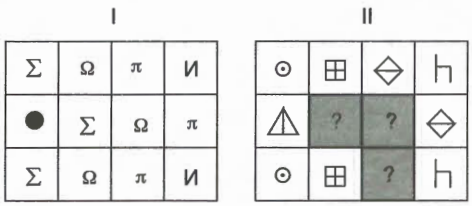
Yukarıda belirlenen kurala göre soru işaretlerinin yerine aşağıdakilerden hangisi gelmelidir?

According to the rule in the figure above, which of the followings stand for in question marks?

A) 
B) 
C) 
D) 
E) 

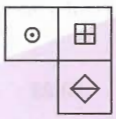
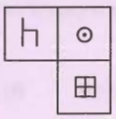
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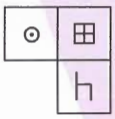
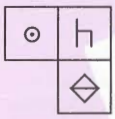
17.



I. şekilde belirlenen kurala göre, II. şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

Given the relationship established in figure I, which of the following does the question mark stand for in figure II?

A)  B)  C) 

D)  E) 

18.

✱	Σ	И	Ω	Ƨ	V
Σ	Ω	Ƨ	V	Σ	И
И	Ƨ	V	Σ	И	Ω
Ω	V	Σ	И	Ω	Ƨ
Ƨ	Σ	И	Ω	Ƨ	V
V	И	Ω	Ƨ	V	Σ

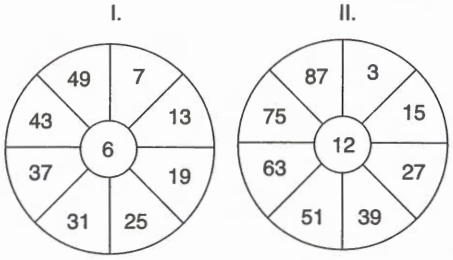
$$[((\Omega \ast И)\ast\Sigma)\ast((Ƨ\ast V)\ast\Omega)]=?$$

Yukarıdaki tabloda ✱ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

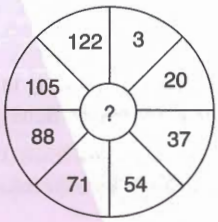
According to the rules of ✱ operation established in the table above, which of the following does the question mark stand for?

A) Σ B) И C) Ω D) Ƨ E) V

19.



III.



Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 9 B) 11 C) 14 D) 17 E) 21

20.

⊗	⊢	⊣	✱	∀	⌓
⊢	⊣	✱	∀	⌓	⊢
⊣	✱	∀	⌓	⊢	⊣
✱	∀	⌓	⊢	⊣	✱
∀	⌓	⊢	⊣	✱	∀
⌓	⊢	⊣	✱	∀	⌓

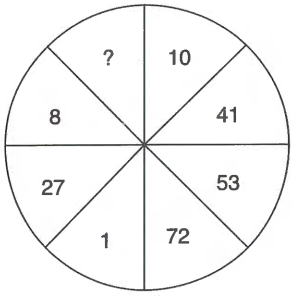
$$((⌓\otimes⊢)\otimes(∀\otimes\ast)\otimes?)\otimes⊣=⊢$$

Yukarıdaki tabloda ⊗ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ⊗ operation established in the table above, which of the following does the question mark stand for?

A) ⊢ B) ⊣ C) ✱ D) ∀ E) ⌓

21.



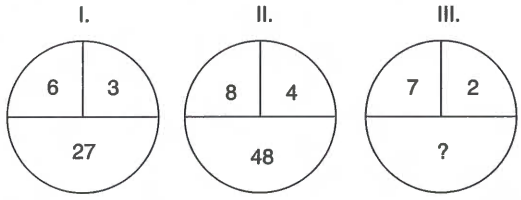
A) 6 B) 15 C) 23 D) 75 E) 125

22.

I.	84	85	87	91	88
II.	80	82	86	83	?

A) 83 B) 85 C) 88 D) 92 E) 95

23.



Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

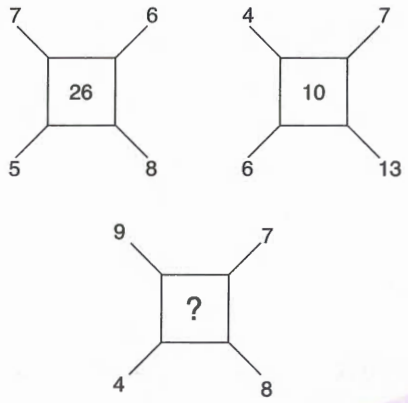
A) 34 B) 38 C) 40 D) 45 E) 48

24.

2	7	4	8	23
1	3	9	5	19
5	8	6	2	26
4	9	7	6	?

A) 23 B) 28 C) 30 D) 32 E) 34

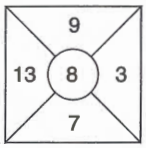
25.



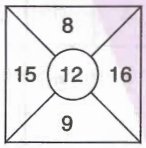
A) 25 B) 34 C) 44 D) 51 E) 63

26.

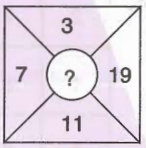
I.



II.



III.

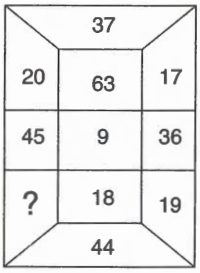


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

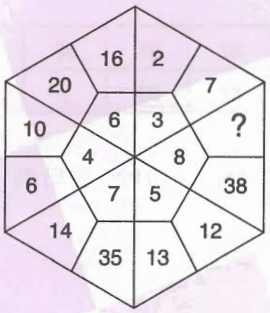
A) 6 B) 9 C) 10 D) 11 E) 14

27.



A) 20 B) 25 C) 15 D) 10 E) 5

28.

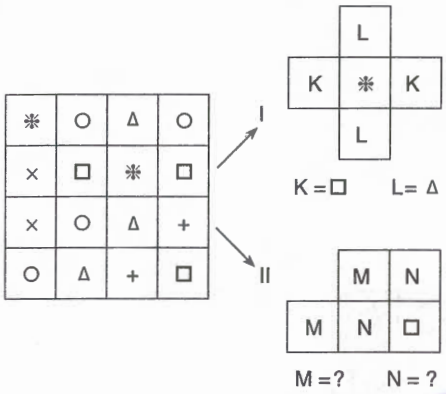


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 17 B) 29 C) 26 D) 19 E) 16

29.

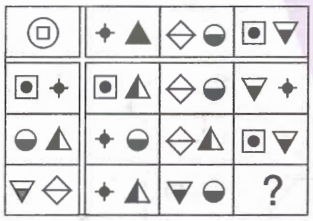


I ve II, yukarıdaki tablonun farklı birer parçasıdır. Buna göre, II'deki M ve N nin yerine aşağıdakilerden hangisi gelmelidir?

I and II are two different parts of the table above. Which of the following do M and N stand for in II?

	M	N
A)	x	+
B)	+	Δ
C)	O	□
D)	✳	x
E)	Δ	+

30.

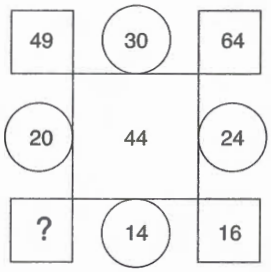


Yukarıdaki tabloda (□) işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of (□) operation established in the table above, which of the following does the question mark stand for?

A) ⊡✦ B) ▽◇ C) ⊡▽ D) ✦▽ E) ⊡◇

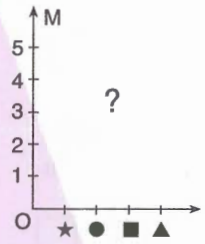
31.



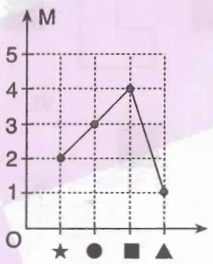
A) 36 B) 81 C) 41 D) 9 E) 25

32.

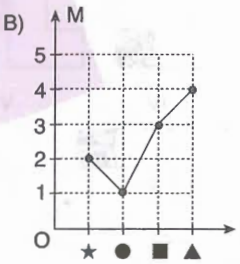
	▲	★	■	●
K	2	1	3	1
L	3	4	2	4
M	1	2	4	3
N	4	3	1	2



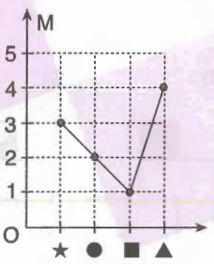
A)



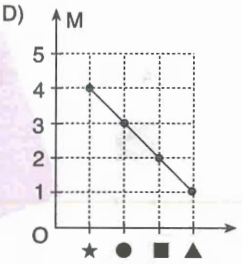
B)



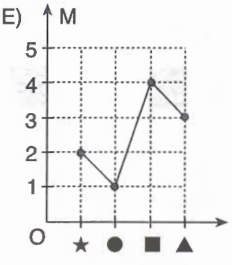
C)



D)



E)



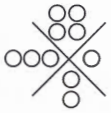
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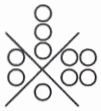
33. Aşağıdakilerden hangisi farklıdır?

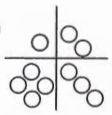
Which of the followings is different?

A) 

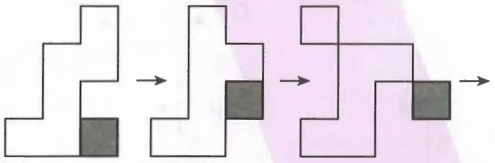
B) 

C) 

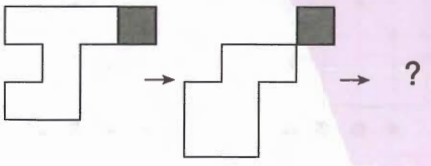
D) 

E) 

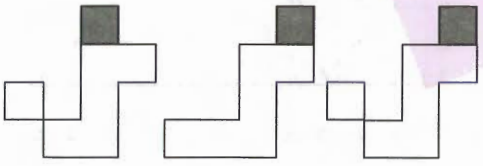
34. I. II. III.



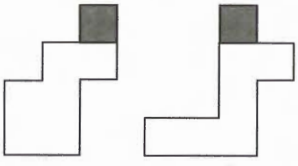
IV. V. VI. ?



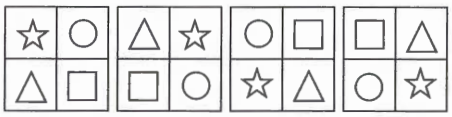
A) B) C)



D) E)



35. I. II. III. IV. V.



?

A) 

B) 

C) 

D) 

E) 

36. 

A) 

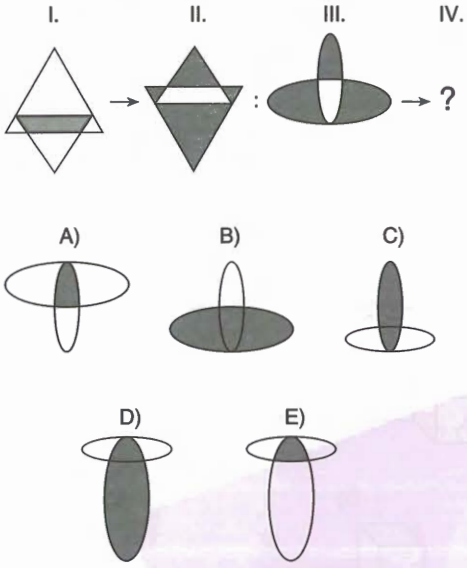
B) 

C) 

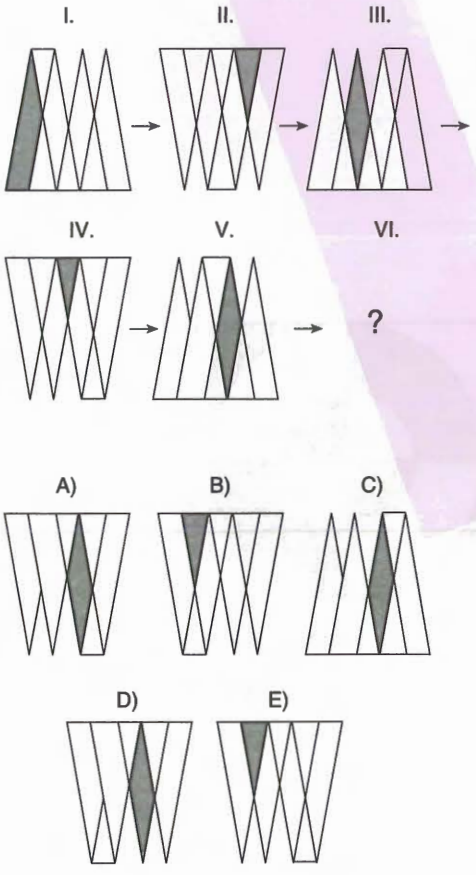
D) 

E) 

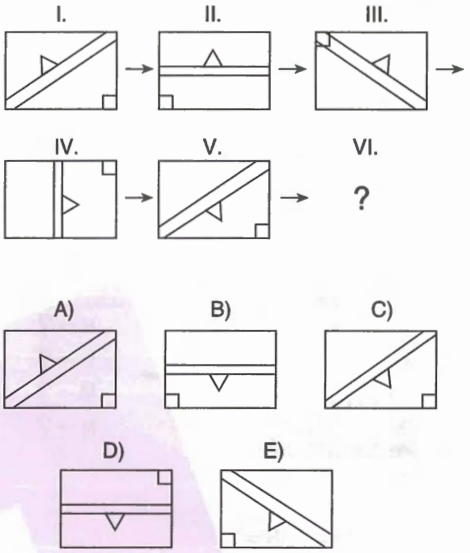
37.



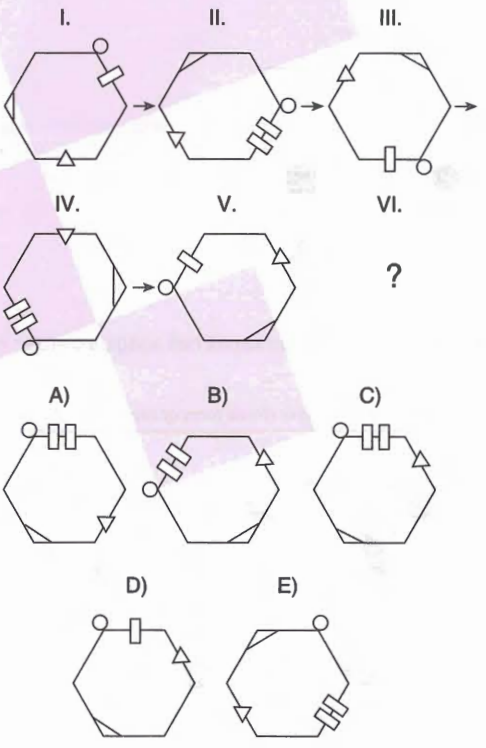
38.



39.

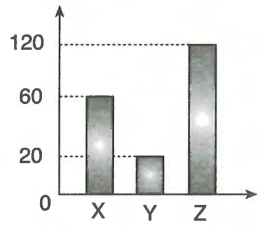


40.

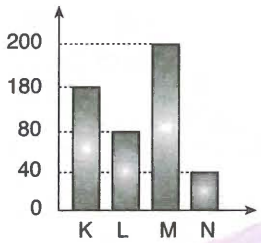


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41.



⇒ X → %30
Y → %10
Z → %60

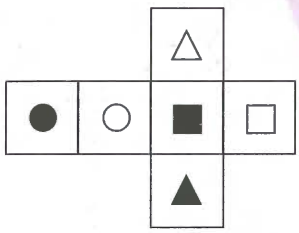


⇒ K → ?
L → ?
M → ?
N → ?

K = ? , L = ? , M = ? , N = ?

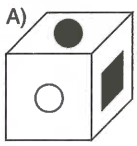
	K	L	M	N
A)	%40	%15	%35	%10
B)	%40	%16	%36	%8
C)	%40	%36	%16	%8
D)	%36	%32	%24	%8
E)	%36	%16	%40	%8

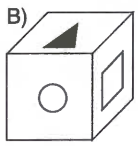
42.

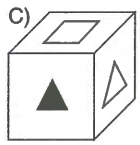


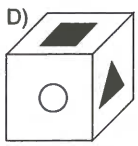
Yukarıda verilen küpün kapalı hali aşağıdakilerden hangisidir?

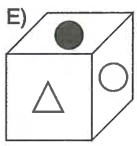
Which of the following is closed form of the given cube above?

A)


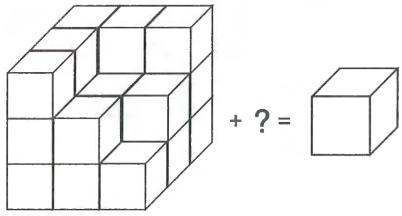
B)


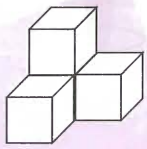
C)


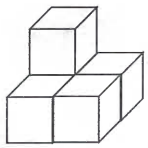
D)


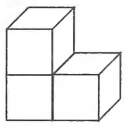
E)


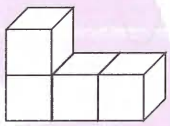
43.

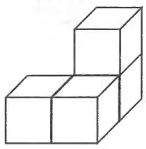


A)


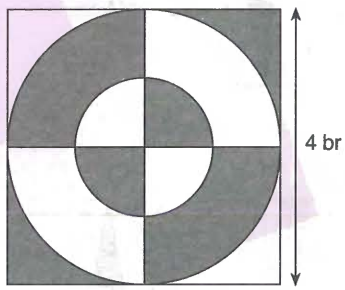
B)


C)


D)


E)


44.



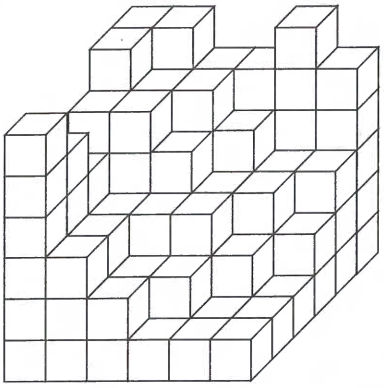
Taralı Alan *(Shaded Area)* = ?

Yukarıdaki şekilde taralı bölgenin alanı nedir?

What is the area of shaded field?

A) 4 B) 8 C) 10 D) 12 E) 16

45.



Yukarıdaki şekilde kaç küp vardır?

How many cubes are there in given figure above?

A) 121 B) 123 C) 125 D) 127 E) 129

46. $[3-(2+1)-5]\cdot[(-2)^2-(5-7)^0]=?$

A) -30 B) -15 C) -10 D) -5 E) 0

47. $\frac{(ab)}{2}+41=(ba)$ $\quad a-b=-2 \Rightarrow a=?$

A) 8 B) 7 C) 6 D) 5 E) 4

48. $\dfrac{\left(4+\frac{1}{4}\right)-\left(3-\frac{1}{6}\right)}{\left(5+\frac{1}{8}-\frac{1}{6}\right)}=?$

A) $\frac{7}{10}$ B) $\frac{2}{7}$ C) $\frac{17}{6}$ D) $\frac{17}{8}$ E) $\frac{4}{7}$

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49. $x - y = t$

$\Rightarrow \left(\frac{y}{x} - \frac{x}{y}\right) : \left(\frac{1}{x} + \frac{1}{y}\right) = ?$

A) $-2t$ B) $-t$ C) 1 D) t E) $2t$

50. $a - 2b = 6 \quad a^2 - 4b^2 = 48$

$\Rightarrow \frac{a}{b} = ?$

A) 10 B) 11 C) 12 D) 13 E) 14

51. $\frac{\left[(2^{-1})^0\right]^{-5}}{\left[\left(1 - \frac{3}{2}\right)^{-2}\right]^0} = ?$

A) 0 B) $\frac{2^3}{5^6}$ C) $\frac{1}{10^7}$ D) $\frac{1}{3}$ E) 1

52. $\frac{\sqrt{56 + \sqrt{56 + \sqrt{56...}}}}{\sqrt[4]{64 \cdot \sqrt[4]{64...}}} = ?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 4

53. $\left.\begin{array}{l} \frac{1}{x} - \frac{1}{y} = \frac{1}{8} \\ \frac{1}{x} - \frac{2}{y} = \frac{1}{2} \end{array}\right\} \Rightarrow x = ?$

A) -5 B) -4 C) -3 D) -2 E) -1

54. $\frac{a}{b} = \frac{2}{3}$

$b - a = 17$

$\Rightarrow a + b = ?$

A) 85 B) 34 C) 17 D) -17 E) -34

55. $\log_3 12 - \log_3 4 = ?$

A) $\frac{1}{9}$ B) $\frac{1}{3}$ C) 1 D) 3 E) 9

56. $\frac{35^x - 5^x}{7^x - 1} = 625 \Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

57. $\sqrt{7 + \sqrt[4]{18 + \sqrt[3]{-8}}} = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

58. $\frac{232,3}{23} + \frac{75,75}{75} = ?$

A) 0,01 B) 10,11 C) 11,01 D) 11,11 E) 111,1

59. $21 + 28 + 35 + 42 + \ ... \ + 84 = ?$

A) 525 B) 555 C) 567 D) 625 E) 675

60. $a, b \in R$

$\sqrt{a - 2b + 1} + \sqrt{b - 2} = 0$

$\Rightarrow a + b = ?$

A) -5 B) -3 C) 1 D) 3 E) 5

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61. $\left.\begin{array}{l} 2x+3y=13 \\ 3x-y=3 \end{array}\right\} \Rightarrow x\cdot y = ?$

A) -6 B) -1 C) 0 D) 4 E) 6

62. $|3x+2| + |6x+4| = 12 \Rightarrow$ S.S. = ?

A) $\left\{-2, \frac{2}{3}\right\}$ B) $\left\{-\frac{2}{3}, 2\right\}$ C) $\{2\}$

D) $\left\{-\frac{4}{3}, 4\right\}$ E) $\left\{\frac{4}{3}, 4\right\}$

63. $a, b \in R$

$f(x) = ax + b$

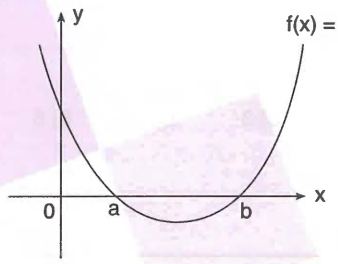
$\left.\begin{array}{l} f^{-1}(3) = 1 \\ f^{-1}(9) = 4 \end{array}\right\} \Rightarrow f(6) = ?$

A) 7 B) 9 C) 11 D) 13 E) 17

64. $\dfrac{\cos 120^\circ \cdot \sin 150^\circ \cdot \tan 135^\circ}{\cot 225^\circ} = ?$

A) $-\frac{1}{4}$ B) $-\frac{1}{2}$ C) 1 D) $\frac{1}{2}$ E) $\frac{1}{4}$

65.



$\Rightarrow a + b = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

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66. $\left.\begin{array}{l} 0 < x < \dfrac{\pi}{2} \\ \tan x = \dfrac{5}{12} \end{array}\right\}$

$\Rightarrow (\sin x)\cdot(\cot x) = ?$

A) $\frac{144}{169}$ B) $\frac{12}{13}$ C) $\frac{13}{12}$ D) $\frac{12}{5}$ E) $\frac{13}{5}$

67. $\log_2(2x+6) = 5 \Rightarrow x = ?$

A) 13 B) 11 C) 9 D) 7 E) 5

68. $x^3y + xy^2 + 5 = 0 \Rightarrow \frac{dy}{dx} = ?$

A) $\frac{-3xy + y^2}{x^3 + 2xy}$ B) $\frac{-3x^2y - y^2}{x^3 - 2xy}$

C) $\frac{-3xy^2 - y^2}{x^3 + 2xy}$ D) $\frac{-3x^2y - y^2}{x^3 + 2xy}$

E) $\frac{3x^2y - y^2}{x^3 - 2xy}$

69. $\lim_{x \to -1} \frac{x^{16} - 1}{x^2 - 1} = ?$

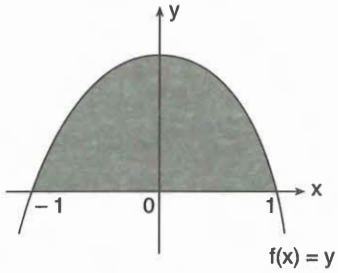
A) -8 B) -4 C) -2 D) 8 E) 16

70. $\left.\begin{array}{l} x = 2t^3 + 1 \\ y = -t^2 + 1 \end{array}\right\} \Rightarrow \left.\frac{dy}{dx}\right|_{t=-1} = ?$

A) -3 B) $-\frac{1}{3}$ C) $\frac{1}{3}$ D) 2 E) $\frac{2}{3}$

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71.



$f(x) = y = (-x^2 + 1)$

$\Rightarrow$ Taralı alan = ?

(Shaded Area = ?)

A) $\frac{1}{2}$ B) $\frac{3}{4}$ C) $\frac{4}{3}$ D) 2 E) 3

72. $\int \frac{1}{x^2+6x+5}dx = ?$

A) $\frac{1}{2}\ln\left|\frac{x+1}{x+5}\right| + c$

B) $\frac{1}{4}\ln\left|\frac{x+5}{x+1}\right| + c$

C) $\frac{1}{4}\ln\left|\frac{x+1}{x+5}\right| + c$

D) $\frac{3}{4}\ln\left|\frac{x+1}{x+5}\right| + c$

E) $\frac{2}{3}\ln\left|\frac{x+5}{x+1}\right| + c$

73. $\int (x^2 + 2^x)dx = ?$

A) $\frac{x^3}{3} + \frac{2^{x+1}}{x+1} + c$

B) $\frac{x^3}{3} + \frac{2^{x-1}}{x-1} + c$

C) $\frac{x^3}{3} + 2^x \cdot \ln 2 + c$

D) $\frac{x^3}{3} + \frac{2^x}{\ln 2} + c$

E) $\frac{x^2}{\ln x} + \frac{2^x}{\ln 2} + c$

74. $\left|\begin{matrix} \sin x & -\cos x \\ \cos x & \sin x \end{matrix}\right| = X$

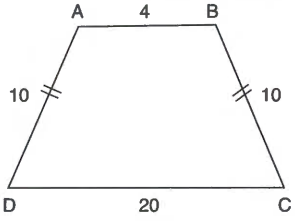
$\left|\begin{matrix} \log_3 2 & -1 \\ \log_2 8 & \log_2 3 \end{matrix}\right| = Y$

$\Rightarrow X \cdot Y = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

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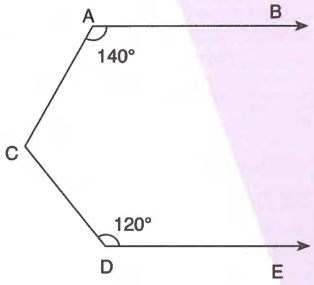
75.



$|AD| = |BC| = 10$ br
$|AB| = 4$ br
$|DC| = 20$ br
$\Rightarrow \tan(\widehat{BCD}) = ?$

A) $\frac{1}{2}$ B) $\frac{3}{5}$ C) $\frac{3}{4}$ D) $\frac{4}{5}$ E) $\frac{3}{2}$

76.



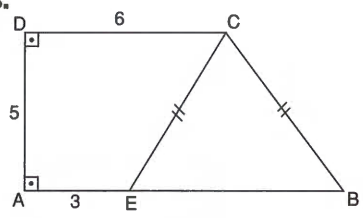
$[AB] // [DE$
$m(\widehat{BAC}) = 140°$
$m(\widehat{CDE}) = 120°$
$\Rightarrow m(\widehat{ACD}) = ?$

A) 40° B) 60° C) 80° D) 100° E) 120°

77. $\left.\begin{matrix} d_1: 2x + ay - 2a = 0 \\ d_2: 2x + 3y - 6 = 0 \end{matrix}\right\} d_1 \perp d_2 \Rightarrow a = ?$

A) $-\frac{3}{4}$ B) $-\frac{4}{3}$ C) $\frac{5}{4}$ D) $\frac{4}{3}$ E) $\frac{1}{2}$

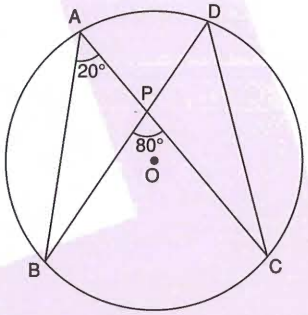
78.



$|CE| = |CB|$
$[DC] \perp [AD]$
$[DA] \perp [AB]$
$|DC| = 6$ br
$|AD| = 5$ br
$|AE| = 3$ br
$\Rightarrow A(ABCD) = ?$

A) 45 B) $\frac{95}{2}$ C) $\frac{75}{2}$ D) $\frac{55}{2}$ E) 27

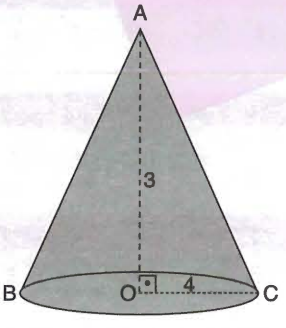
79.



$m(\widehat{BAC}) = 20°$
$m(\widehat{BPC}) = 80°$
$\Rightarrow m(\widehat{ACD}) = ?$

A) 60 B) 55 C) 40 D) 20 E) 10

80.



$[AO] \perp [OC]$
$|OA| = 3$ br
$|OC| = 4$ br
$\Rightarrow$ Hacim(ABC) = ?
(Volume(ABC) = ?)

A) 4π B) 8π C) 12π D) 16π E) 20π

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DENEME SINAVI 17 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
D	B	E	E	B	C	C	D	D	C	D	B	C	A	D	D	B	C	D	A

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
E	D	D	C	C	C	B	C	E	E	D	A	C	C	A	C	A	B	B	A

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
E	D	B	B	C	B	E	B	B	E	E	D	B	A	C	D	C	D	A	E

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
E	A	D	E	E	B	A	D	D	C	C	C	D	C	C	D	B	C	A	D

DENEME SINAVI 18
TRIAL EXAM 18

1.

PENA
SEMA
LALE
SELE
ATEŞ

⇒ LALE = ?

A)  B) 

C)  D) 

E) 

2.

12594	▲●❑☆✧
95421	✧☆▲❑●
42915	☆●✧❑▲
14259	❑✧▲●☆
51492	☆▲●✧❑

⇒ 14259 = ?

A) ▲●❑☆✧ B) ✧☆▲❑● C) ☆●✧❑▲

D) ❑✧▲●☆ E) ☆▲●✧❑

3.

△▽⌖□	1987
✻★⌖△	3175
△★□✻	3897
⌖□✻★	5193
★⌖▽□	9751

⇒ ✻⌖□△▽ = ?

A) 57983 B) 79538 C) 53789

D) 93857 E) 59738

4.

3 4 5	▲★❑
2 1 6	✶◆★
5 4 3	Δ●■
8 7 9	❑★▲
6 1 2	■●Δ

⇒ 879 = ?

A) ▲★❑ B) ✶◆★ C) Δ●■

D) ❑★▲ E) ■●Δ

5.

$$\begin{array}{r} KLM \\ KNN \\ +\ KML \\ \hline 1K53 \end{array}$$

⇒ K = ?

A) 1 B) 2 C) 3 D) 4 E) 5

6.

$$\begin{array}{r} KL \\ +\ LK \\ \hline MM \end{array} \qquad \begin{array}{r} KL \\ LK \\ LL \\ +\ KK \\ \hline 176 \end{array}$$

⇒ M = ?

A) 3 B) 4 C) 5 D) 6 E) 8

7.

$$\begin{array}{r} KL \\ \times\ \ 4 \\ \hline PR \end{array} \qquad \begin{array}{r} KL \\ \times\ \ 6 \\ \hline MN \end{array} \qquad \begin{array}{r} PR \\ +\ MN \\ \hline 130 \end{array} \qquad \Rightarrow R \cdot N = ?$$

A) 8 B) 9 C) 12 D) 14 E) 16

8.

$$\begin{array}{r} MN \\ -\ NM \\ \hline 72 \end{array} \qquad \Rightarrow M + N = ?$$

A) 8 B) 9 C) 10 D) 11 E) 12

9. I. 13 ● 12 = 5
II. 21 ● 19 = 8
III. 16 ● 29 = 9
IV. 39 ● 11 = ?

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 6 B) 7 C) 10 D) 11 E) 12

10. I. 11 ▲ 16 = 54

II. 8 ▲ 11 = 38

III. 14 ▲ 7 = 42

IV. 12 ▲ 3 = ?

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 26 B) 28 C) 30 D) 32 E) 34

11. I. (7 ■ 1) ● (12 ■ 3) = 54

II. (8 ● 4) ■ (5 ● 3) = 17

III. ((9 ■ 2) ● 4) ■ 5 = ?

Yukarıdaki iki eşitlik ■ ve ● işaretlerinin görevini belirtmektedir. Buna göre, üçüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions of ■ and ● are unchanged. What is the solution of the third equation?

A) 23 B) 32 C) 43 D) 58 E) 70

12.

+	K	L	M
K			4 · K
L	3 · K		
M		10	

$\Rightarrow K + L + M = ?$

Yukarıdaki toplama tablosunda K, L ve M harfleri belli birer sayının yerine kullanılmıştır. Buna göre K+L+M kaçtır?

In the summation table above, the letters K, L and M each stand for a specific number. What is the value of K+L+M?

A) 10 B) 11 C) 12 D) 14 E) 16

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13.

×	A	B	C
A			4 · C
B	28		
C		35	

$\Rightarrow$ C = ?

Yukarıdaki çarpma tablosunda A, B ve C harfleri belli birer sayının yerine kullanılmıştır. Buna göre C kaçtır?

In the multiplication table above, the letters A, B and C each stand for a specific number. What is the value of C?

A) 4 B) 5 C) 7 D) 8 E) 9

14.

+	a	b	c
a		3 · c	
b			

×	a	b	c
a			36
b	27		

$\Rightarrow \frac{a \cdot c}{b} = ?$

Yukarıdaki toplama ve çarpma tablolarında a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre $\frac{a \cdot c}{b}$ kaçtır?

In the summation and multiplication tables above, the letters K, L and M each stand for a specific number. What is the value of $\frac{a \cdot c}{b}$ *?*

A) 3 B) 4 C) 6 D) 9 E) 12

15. I. $a \ast b = a^2 - b^2$

II. $1001 \ast 1000 = ?$

A) 1 B) 2001 C) 100010 D) 201001 E) 1002001

16.

▣	✣	⟐	Ω	✌	⸔
✣	⟐	Ω	✌	⸔	✣
⟐	Ω	✌	⸔	✣	⟐
Ω	✌	⸔	✣	⟐	Ω
✌	⸔	✣	⟐	Ω	✌
⸔	✣	⟐	Ω	✌	⸔

$[(⸔ \blacksquare ⟐) \blacksquare (✣ \blacksquare ✌)] \blacksquare (Ω \blacksquare ?) = ⸔$

Yukarıdaki tabloda ▣ işleminin kuralları verilmiştir. Buna göre, soru işaretinin yerine hangi şekil gelmelidir?

According to the rules of ▣ operation established in the table above, which of the following does the question mark stand for?

A) ✣ B) ⟐ C) Ω D) ✌ E) ⸔

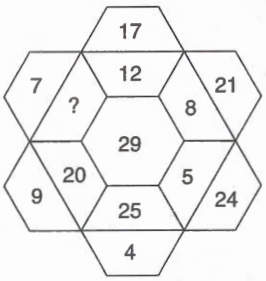
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17.

3921	9213	2139	?

A) 9312 B) 1329 C) 9213 D) 3129 E) 1392

18.

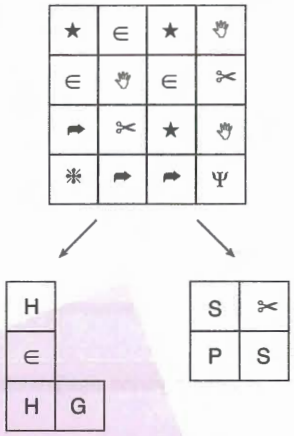


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 16 B) 19 C) 20 D) 22 E) 24

19.



H = ★ G = ✳ S= ? P = ?

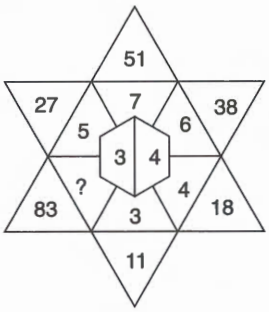
I ve II, yukarıdaki tablonun farklı birer parçasıdır. Buna göre, II'deki S ve P nin yerine aşağıdakilerden hangisi gelmelidir?

I and II are two different parts of the table above. Which of the following do S and P stand for in II?

	S	P
A)	✳	➦
B)	∈	★
C)	✳	✂
D)	➦	✳
E)	➦	★

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20.



Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

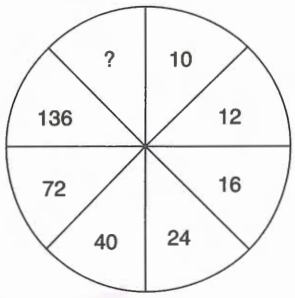
A) 2 B) 8 C) 9 D) 10 E) 12

21.



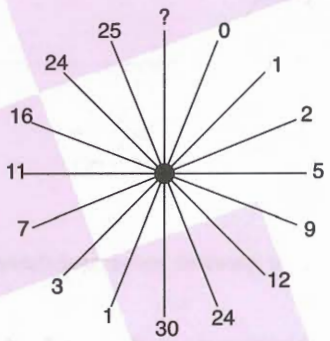
A) 7 B) 8 C) 12 D) 13 E) 15

22.



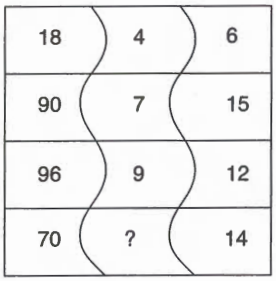
A) 186 B) 208 C) 225 D) 264 E) 288

23.



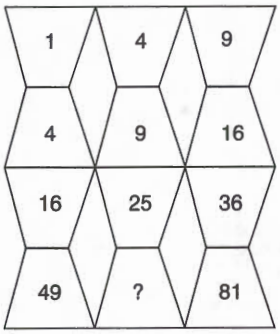
A) 26 B) 28 C) 30 D) 32 E) 34

24.



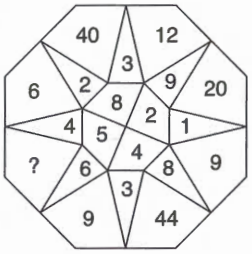
A) 6 B) 5 C) 4 D) 7 E) 3

25.



A) 121 B) 64 C) 36 D) 25 E) 49

26.

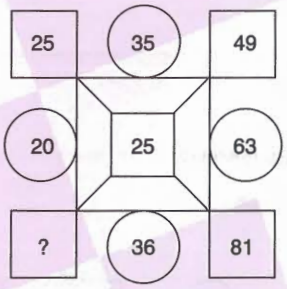


Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

What does the question mark stand for in the figure above?

A) 38 B) 42 C) 46 D) 50 E) 64

27.



Yukarıdaki şekilde soru işaretinin yerine aşağıdakilerden hangisi gelmelidir?

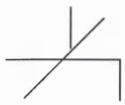
What does the question mark stand for in the figure above?

A) 4 B) 16 C) 34 D) 46 E) 64

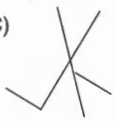
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28. Aşağıdakilerden hangisi farklıdır?

Which of the followings is different?

A) 

B) 

C) 

D) 

E) 

29. Aşağıdakilerden hangisi farklıdır?

Which of the followings is different?

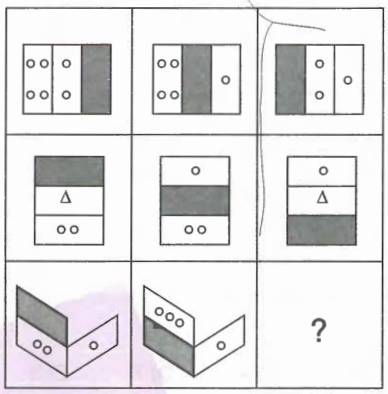
A) 

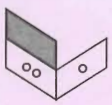
B) 

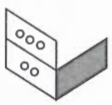
C) 

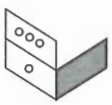
D) 

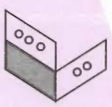
E) 

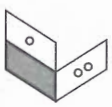
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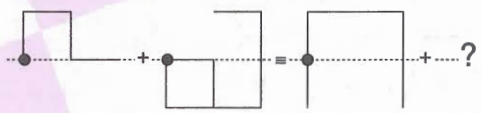
A) 

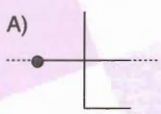
B) 

C) 

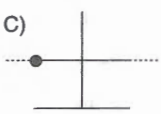
D) 

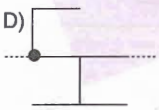
E) 

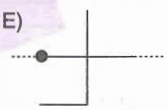
31. 

A) 

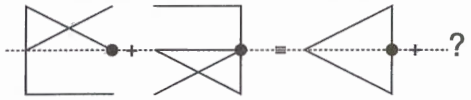
B) 

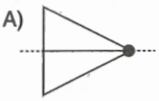
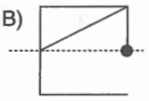
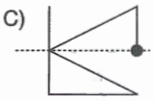
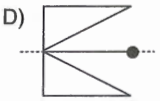
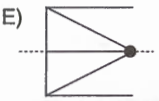
C) 

D) 

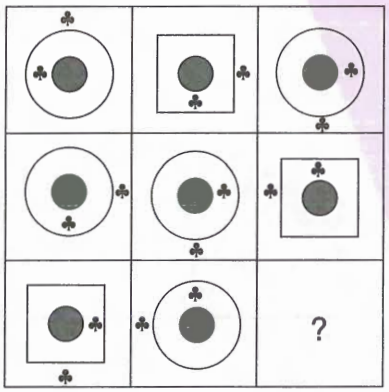
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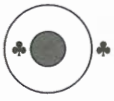
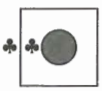
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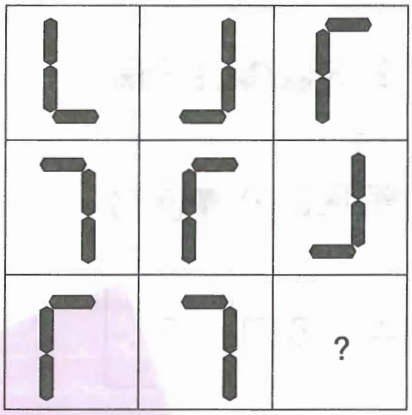
A) 
B) 
C) 
D) 
E) 

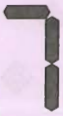
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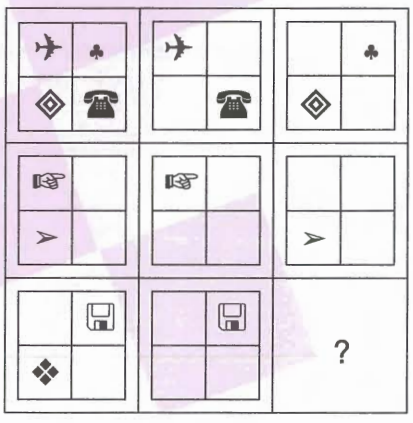
A) 
B) 
C) 
D) 
E) 

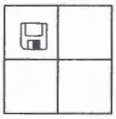
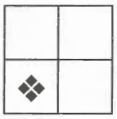
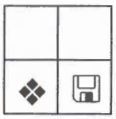
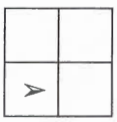
34.



A) 
B) 
C) 
D) 
E) 

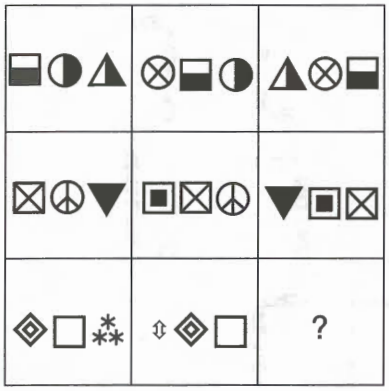
35.



A) 
B) 
C) 
D) 
E) 

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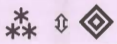
36.



A) 

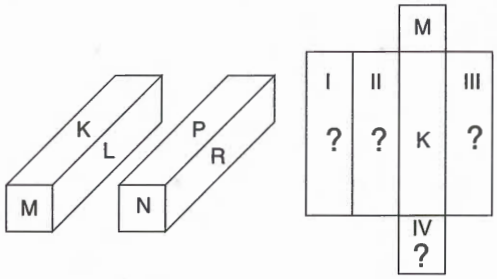
B) 

C) 

D) 

E) 

37.

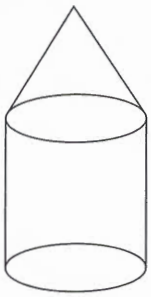


Yukarıdaki ikinci şekil, parçalar koparılmadan birinci şekilden elde edilmiştir. İkinci şekildeki I, II, III ve IV yerine hangi harfler gelmelidir?

The second figure is obtained from the first without any separation of the parts. What letters do I, II, III and IV respectively stand for in the second figure?

	I	II	III	IV
A)	P	L	R	N
B)	R	L	P	N
C)	L	P	R	N
D)	P	R	L	N
E)	R	L	N	P

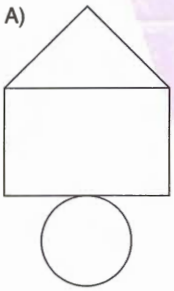
38.



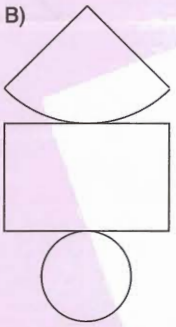
Aşağıdaki şekillerden hangisi yukarıdaki şeklin açılmış halidir?

Which of the followings is open formed of given shape above?

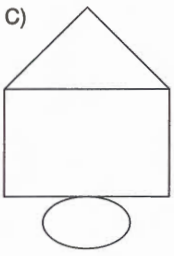
A)



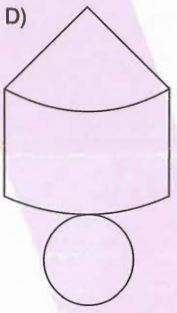
B)



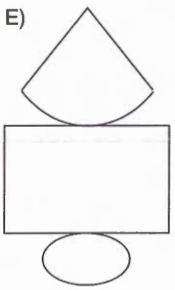
C)



D)



E)



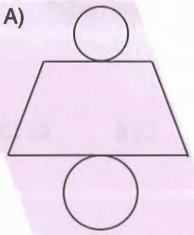
39.



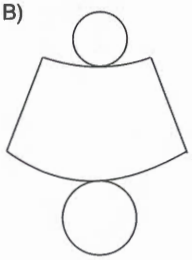
Aşağıdaki şekillerden hangisi yukarıdaki şeklin açılmış halidir?

Which of the followings is open formed of given shape above?

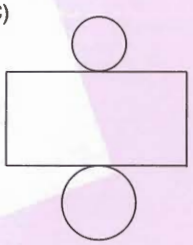
A)



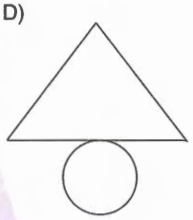
B)



C)



D)

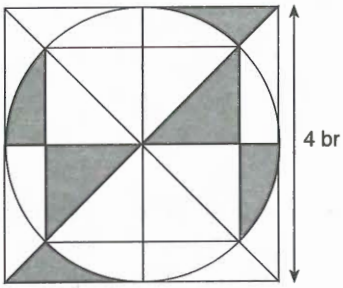


E)



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40.

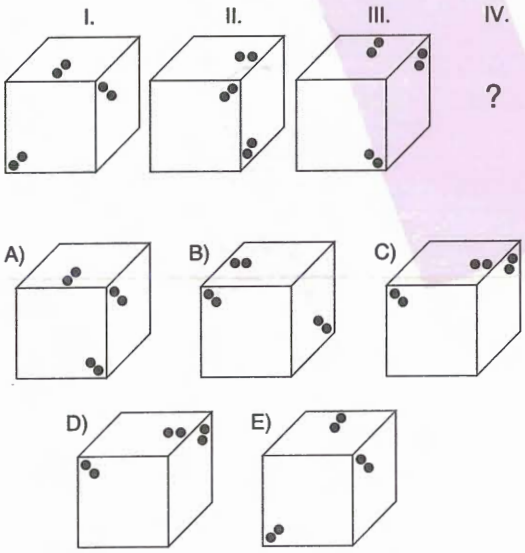


Yukarıdaki şekilde taralı bölgenin alanı nedir?

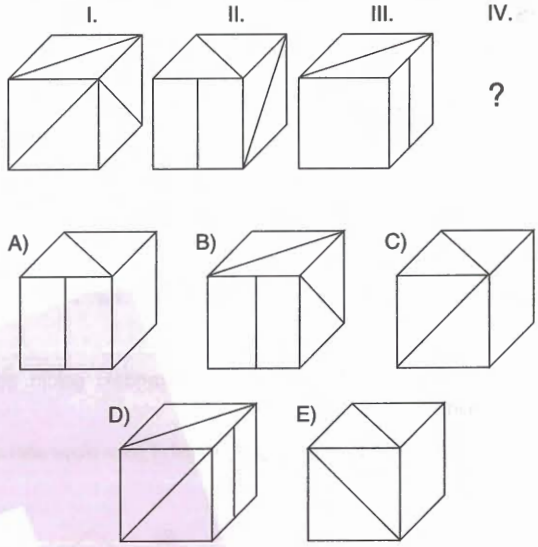
What is the area of shaded area?

A) 2 B) 4 C) 6 D) 8 E) 10

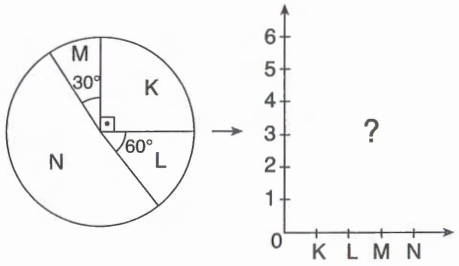
41.

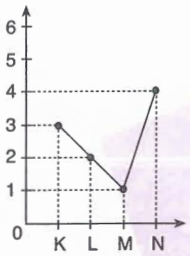


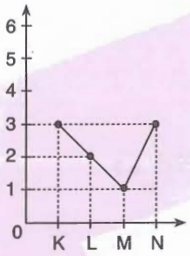
42.

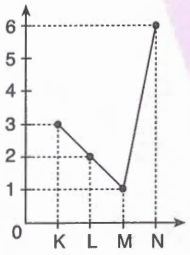


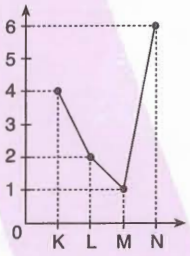
43.

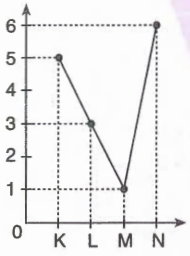


A)


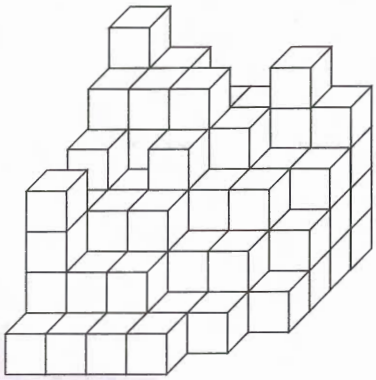
B)


C)


D)


E)


44.

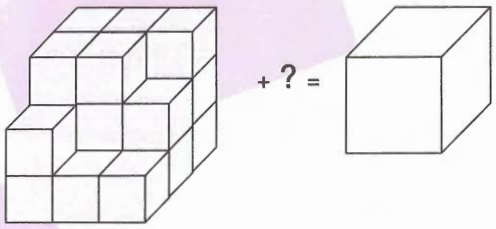


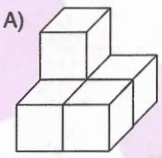
Yukarıdaki şekilde kaç küp vardır?

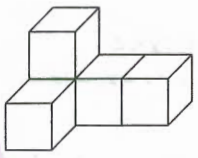
How many cubes are there in given figure above?

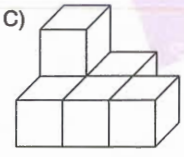
A) 97 B) 99 C) 100 D) 101 E) 102

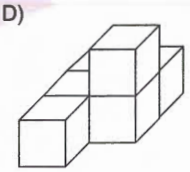
45.

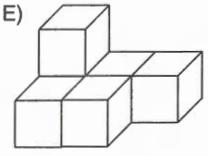


A)


B)


C)


D)


E)


46. $(1515)_{10} = (x)_5 \Rightarrow x = ?$

A) 22010 B) 1110 C) 22030 D) 1130 E) 21030

47. $-1 < a < |a|$
$\Rightarrow |a-1| - |a+1| - |-3a| = ?$

A) a B) 2 C) 0 D) -1 E) $-a$

48. $x < y < z$
$\Rightarrow |x-z| - |z-y| - |x-y| = ?$

A) x B) $-2x$ C) 0 D) $x-y$ E) y

49. $9^x = 7 \Rightarrow \log_3 7 = ?$

A) x B) 2x C) 3x D) 4x E) 5x

50. $9^{\log_3 4} = ?$

A) 4 B) 6 C) 8 D) 12 E) 16

51. $f(x) = \begin{cases} 2x+1, & x < 0 \\ x-1, & x \geq 0 \end{cases}$

$\Rightarrow \lim_{x \to 2} f(x) = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

52. $f(x)=\dfrac{|x+2|}{x+2}$

$\Rightarrow \lim\limits_{x\to -3} f(x)+\lim\limits_{x\to 3} f(x)=?$

A) -3 B) -1 C) 0 D) 1 E) 3

53. $f(x)=\cos(3x+1)$

$\Rightarrow f'(x)=?$

A) $-\sin(3x+1)$ B) $3\sin(3x+1)$
C) $-3\sin(3x+1)$ D) $-3\sin x$
E) $3\sin x$

54. $\begin{vmatrix} \tan x & 2\cos x \\ \cos x & \cot x \end{vmatrix}=?$

A) $\sin(2x)$ B) $\cos(2x)$ C) $-\cos(2x)$
D) 1 E) 0

55. $A=\begin{bmatrix} 1 & 1 \\ 3 & 4 \end{bmatrix}$

$\Rightarrow A^{-1}=?$

A) $\begin{bmatrix} 2 & 1 \\ 4 & 3 \end{bmatrix}$ B) $\begin{bmatrix} 3 & 4 \\ 1 & 2 \end{bmatrix}$ C) $\begin{bmatrix} 4 & 1 \\ 3 & 1 \end{bmatrix}$

D) $\begin{bmatrix} 1 & -1 \\ -1 & 4 \end{bmatrix}$ E) $\begin{bmatrix} 4 & -1 \\ -3 & 1 \end{bmatrix}$

56. $a, b \in Z$

$\dfrac{\sqrt[4]{4^{2a+6}}}{\sqrt{3^{4a+2b}}}=27$

$\Rightarrow b=?$

A) -2 B) -1 C) 1 D) 2 E) 3

57. $\dfrac{2a-b}{3a+2b}=\dfrac{3}{2}$

$\Rightarrow \dfrac{a+b}{a}=?$

A) $-\dfrac{8}{3}$ B) $-\dfrac{3}{8}$ C) 1 D) $\dfrac{3}{8}$ E) $\dfrac{8}{3}$

58. $\left.\begin{array}{l} f(x) = \log_3(x+2) \\ g(x) = x-2 \end{array}\right\} \Rightarrow (fog)(3) = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

59. $x + 5 = a$
$x - 5 = b$
$6 - 2(x+1) = 0$
$\Rightarrow a \cdot b = ?$

A) 21 B) 9 C) -9 D) -21 E) -25

60. $\dfrac{(2n)!}{(2n-2)!} = 10 \cdot n$

$\Rightarrow n = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

61. $\dfrac{m+\frac{1}{m}}{m-\frac{1}{m}} \cdot \dfrac{m^2-1}{1+m^2} = ?$

A) 1 B) $m+1$ C) $m-1$ D) m^2-1 E) m^2+1

62. $\dfrac{\dfrac{1}{\sin\alpha}+\dfrac{\sin\alpha}{\cos^2\alpha}}{\dfrac{1}{\cos\alpha}+\dfrac{\cos\alpha}{\sin^2\alpha}} = ?$

A) $\cot\alpha$ B) $\tan\alpha$ C) $\dfrac{\sin^2\alpha}{\cos\alpha}$

D) $\sin\alpha \cdot \cos\alpha$ E) $\dfrac{\cos^2\alpha}{\sin\alpha}$

63. $\left.\begin{array}{l} 0 < x < \dfrac{\pi}{2} \\ \tan x = \dfrac{12}{5} \end{array}\right\} \Rightarrow \dfrac{1+\cos x}{\sin x - 1} = ?$

A) -18 B) -9 C) 1 D) 9 E) 18

64. $(x-2)^2 - ax = 3(x-a)$

S.S. $= \{x_1, x_2\}$

$x_1 + x_2 = 4$

$\Rightarrow a = ?$

A) -3 B) -1 C) 0 D) 1 E) 2

65. $\sqrt[3]{a\sqrt{\sqrt[3]{a}}} = a^x$

$\Rightarrow x = ?$

A) $\dfrac{11}{18}$ B) $\dfrac{9}{17}$ C) $\dfrac{7}{18}$ D) $\dfrac{7}{17}$ E) $\dfrac{5}{18}$

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66. $\frac{4^x+4^x+4^x+4^x}{3^x+3^x+3^x} = \left(\frac{4}{3}\right)^3$

$\Rightarrow$ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

67. $8 - \frac{16}{1+\frac{7}{x+2}} = 6$

$\Rightarrow$ x = ?

A) – 2 B) –1 C) 0 D) 1 E) 2

68. $f(x) = 2x^2 + 7x - 12$

$\Rightarrow \lim_{x\to 2} \frac{f(x)-f(2)}{x-2} = ?$

A) 19 B) 17 C) 15 D) 11 E) 10

69. $y = f(x) = \frac{2x+1}{e^x}$

$\Rightarrow \left.\frac{dy}{dx}\right|_{x=0} = f'(0) = ?$

A) 4 B) 3 C) 2 D) 1 E) –1

70. $\left.\begin{matrix} f(x) = 2x \\ g(x) = x \end{matrix}\right\} \Rightarrow (fofogof)(2) = ?$

A) 2 B) 4 C) 8 D) 16 E) 32

71. $\int \sin(2x+1)dx = ?$

A) $\cos(2x+1) + c$ B) $-\cos(2x+1) + c$

C) $\frac{1}{2}\cos(2x+1) + c$ D) $-\frac{1}{2}\cos(2x+1) + c$

E) $-2\cos(2x+1) + c$

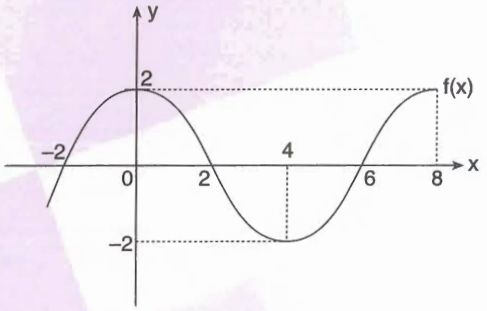
72. $\int (x+1)f(x)dx = \frac{x^3}{3} - x + 7$

$\Rightarrow f(x) = ?$

A) $x - 1$ B) $x^2 - 1$ C) $x + 1$

D) $x^2 + 1$ E) $2x + 1$

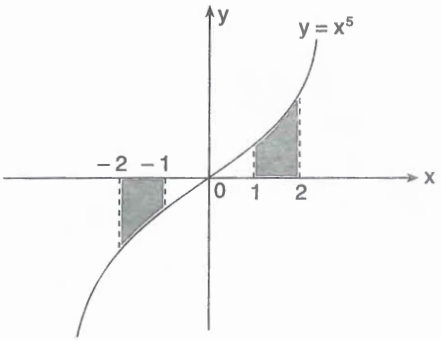
73.



$\Rightarrow (fofof)(8) = ?$

A) -2 B) 0 C) 2 D) 4 E) 6

74.



Taralı alanlar toplamı = ?

Sum of the shaded area = ?

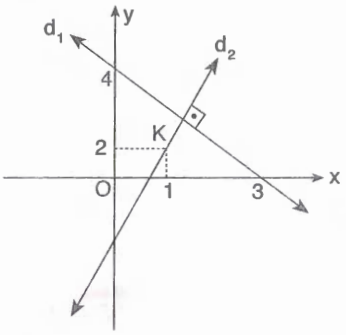
A) 0 B) $\frac{21}{2}$ C) 21 D) $\frac{63}{2}$ E) $\frac{64}{3}$

75. $\begin{bmatrix}1 & -1\\2 & 1\end{bmatrix}\cdot\begin{bmatrix}3 & 1\\-1 & 2\end{bmatrix}+\begin{bmatrix}2 & 3\\-1 & 1\end{bmatrix}=?$

A) $\begin{bmatrix}4 & -1\\5 & 4\end{bmatrix}$ B) $\begin{bmatrix}6 & 2\\4 & 5\end{bmatrix}$ C) $\begin{bmatrix}2 & 4\\6 & 5\end{bmatrix}$

D) $\begin{bmatrix}5 & 4\\4 & -1\end{bmatrix}$ E) $\begin{bmatrix}6 & 4\\2 & 5\end{bmatrix}$

76.



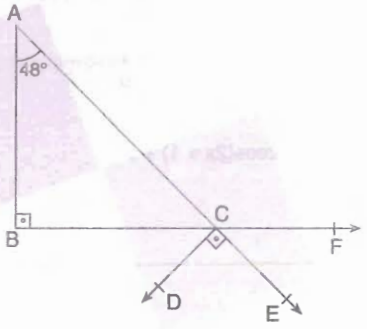
$d_1 \perp d_2$, $K(1, 2)$ $\Rightarrow d_2 = ?$

A) $3y - 4x + 5 = 0$ B) $3y + 4x - 5 = 0$

C) $4y - 3x + 5 = 0$ D) $4y - 3x - 5 = 0$

E) $2y - 4x + 4 = 0$

77.



$m(\widehat{BAE}) = 48°$

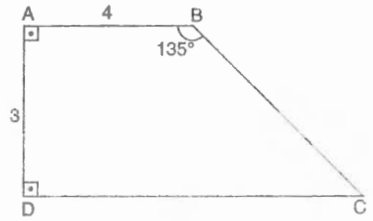
$[AB] \perp [BF$

$[CD \perp [AE$

$\Rightarrow m(\widehat{BCD}) = ?$

A) 38° B) 42° C) 48° D) 52° E) 58°

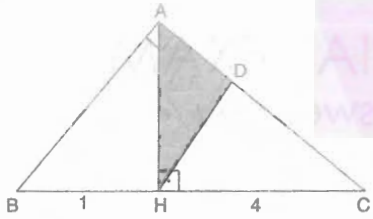
78.



$[AD] \perp [DC]$
$[AB] \perp [AD]$
$|AB| = 4$ br
$|AD| = 3$ br
$m(\widehat{ABC}) = 135°$
$\Rightarrow A(ABCD) = ?$

A) $\frac{27}{2}$ B) $\frac{29}{2}$ C) $\frac{33}{2}$ D) $\frac{35}{2}$ E) 38

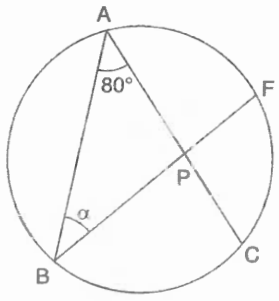
79.



$m(\widehat{BAC}) = m(\widehat{AHC}) = 90°$
$|BH| = 1$ br
$|HC| = 4$ br
$3|AD| = |DC|$
$\Rightarrow A(AHD) = ?$

A) $\frac{8}{5}$ B) 1 C) $\frac{5}{8}$ D) $\frac{3}{5}$ E) $\frac{4}{7}$

80.



$m(\widehat{BAC}) = 80°$
$|AB| = |AC|$
$m(\widehat{AF}) = m(\widehat{FC})$
$m(\widehat{ABF}) = \alpha$
$\Rightarrow \alpha = ?$

A) 15° B) 20° C) 25° D) 30° E) 35°

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DENEME SINAVI 18 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	E	E	B	D	E	E	C	C	C	A	C	B	E	B	E	E	D	D	C

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	D	E	A	B	D	B	D	C	B	C	E	A	C	B	D	B	B	B	B

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
B	E	C	C	E	C	A	C	B	E	A	C	C	C	E	E	D	A	D	B

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
A	B	A	A	C	B	B	C	D	D	D	A	C	C	B	D	C	C	B	C

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Yös Lovers L

DENEME SINAVI 19
TRIAL EXAM 19

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Yös Lovers L

1.

0	1	8	72	46	521	612	?

A) 98 B) 343 C) 756 D) 843 E) 927

2.

$\sqrt{2}$	3	2	5	4	17	A
1	8	3	24	15	288	B

$\Rightarrow A + B = ?$

A) 214 B) 271 C) 323 D) 342 E) 415

3. I. $1 \blacksquare 1 = 1$

II. $12 \blacksquare 3 = 6$

III. $4 \blacksquare 16 = 8$

IV. $50 \blacksquare 2 = ?$

A) 4 B) 5 C) 10 D) 12 E) 14

4. $x \blacktriangle y = 3x - 5y$

$$\Rightarrow \frac{36}{\frac{24}{3 \blacktriangle 1}} + 2 = ?$$

A) 0 B) 2 C) 4 D) 6 E) 8

5. I. ● 524 → 452

II. ● 648 → 864

III. 138 ■ → 21

IV. 246 ■ → 30

V. ● 176 ■ → 617 ■ → 68

VI. ● 835 ■ → ?

A) 24 B) 61 C) 88 D) 92 E) 104

7.

I. F = 9

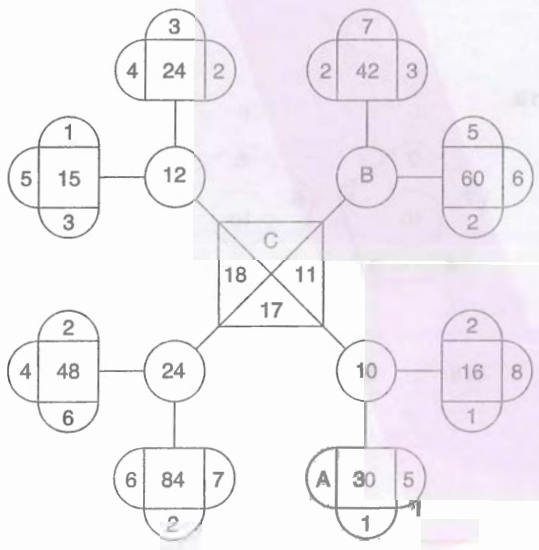
II. T = 4

III. E = 16

IV. H = ?

A) 3 B) 4 C) 9 D) 16 E) 25

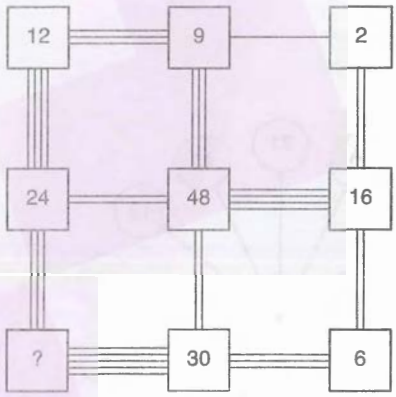
6.



⇒ A + B + C = ?

A) 24 B) 26 C) 28 D) 30 E) 32

8.

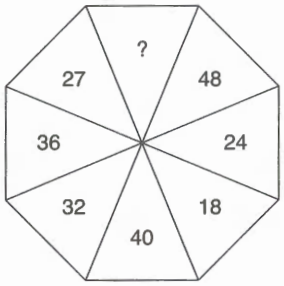


A) 8 B) 15 C) 16 D) 24 E) 32

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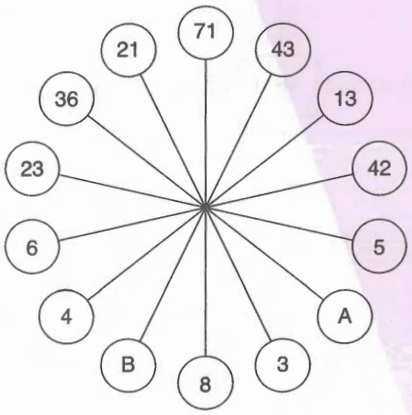
Yös Lovers L

9.



A) 16 B) 28 C) 34 D) 60 E) 64

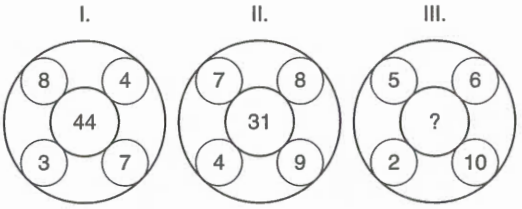
10.



⇒ A + B = ?

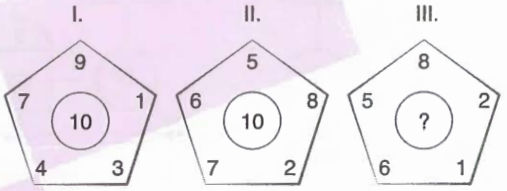
A) 9 B) 11 C) 13 D) 14 E) 16

11.



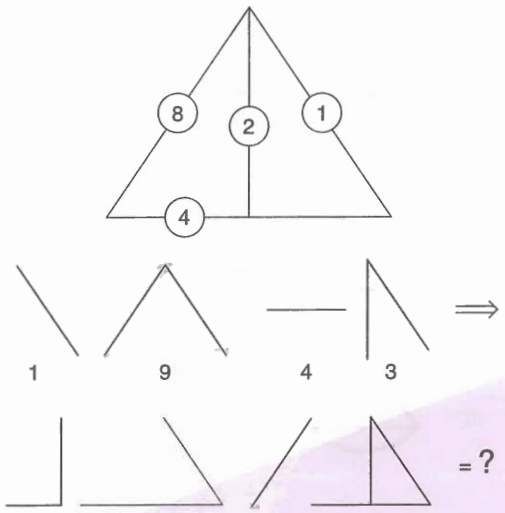
A) 17 B) 21 C) 27 D) 38 E) 42

12.



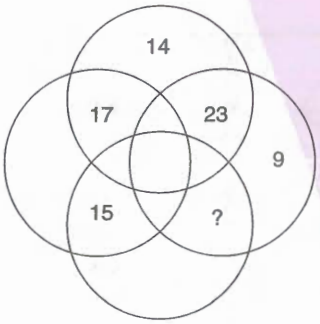
A) 8 B) 9 C) 10 D) 11 E) 12

13.



A) 6758 B) 4587 C) 6512 D) 6587 E) 8567

14.



A) 17 B) 8 C) 21 D) 22 E) 24

15.

+	a	b	c
a			
b			8 – 2a
c	b + 3		

⇒ 3a + 2c = ?

A) 3 B) 5 C) 8 D) 11 E) 17

16.

+	a	b	c
a			3 + b – a
b		a + 2c + 9	
c			

⇒ a = ?

A) 1 B) 2 C) 3 D) 4 E) 5

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17.

+	a	b
a	4	
b		3 · a

×	a	b
a	K	
b	L	

⇒ K + L = ?

A) 2 B) 3 C) 6 D) 8 E) 10

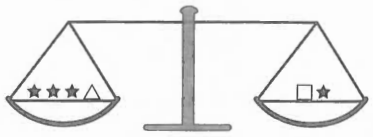
18.

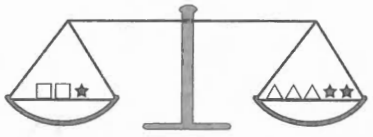
+	a	b	c	d
a		12		
b				
c				
d			7	

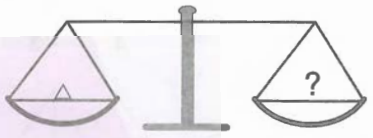
⇒ a · c + b · c + a · d + b · d = ?

A) 19 B) 38 C) 57 D) 76 E) 84

19.

I. 

II. 

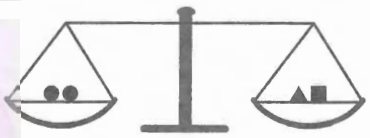
III. 

A) ★ B) □ C) □□□

D) ★★★ E) ★□□

20.

I. 

II. 

Şekildeki teraziler dengede olduğuna göre ▲, ■ ve ● arasındaki ilişki aşağıdakilerden hangisidir?

The levers are in balance. Which of the following is shown the relation between ▲, ■ and ● ?

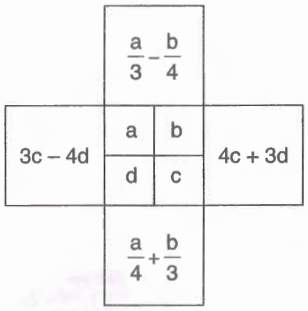
A) ■ = ● = ▲ B) ■ > ● > ▲ C) ■ > ▲ > ●

D) ▲ > ● > ■ E) ● > ▲ > ■

21.

$$\begin{array}{r} \cdot\ \cdot\ \cdot \\ \times\quad 3\ 2 \\ \hline \cdot\ \cdot\ \cdot \\ +\ 7\ 3\ 5 \\ \hline \cdot\ \cdot\ \cdot\ \cdot \end{array} \longrightarrow\ ?$$

A) 7780 B) 7840 C) 7930 D) 8230 E) 8930



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif tamsayıyı içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir; fakat, bunlarla yapılacak işlemler her soruda aynıdır.

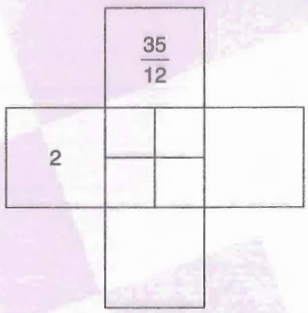
The figure above has been organized according to various operations using four positive integers represented by the letters a, b, c and d. The integers represented by the letters may change from question to question, but the operations to be done remain the same.

22.

$$\begin{array}{r} KL \\ \times\quad M \\ \hline 148 \end{array} \qquad \begin{array}{r} KL \\ \times\quad N \\ \hline 222 \end{array} \qquad \begin{array}{r} KL \\ \times\quad P \\ \hline 296 \end{array} \qquad \begin{array}{r} MNP \\ \times\quad KL \\ \hline ? \end{array}$$

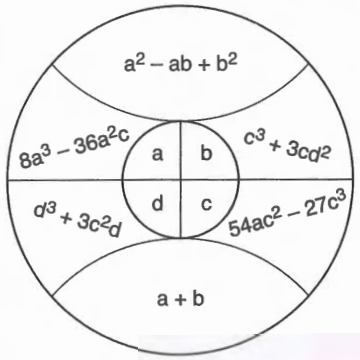
A) 17316 B) 23976 C) 25308 D) 31302 E) 31968

23.



$\Rightarrow 4a - 3b + 3c - 4d = ?$

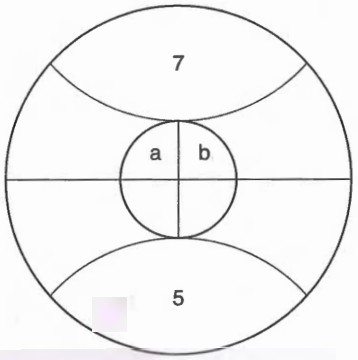
A) 20 B) 25 C) 32 D) 37 E) 42



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif tamsayıyı içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir; fakat, bunlarla yapılacak işlemler her soruda aynıdır.

The figure above has been organized according to various operations using four positive integers represented by the letters a, b, c and d. The integers represented by the letters may change from question to question, but the operations to be done remain the same.

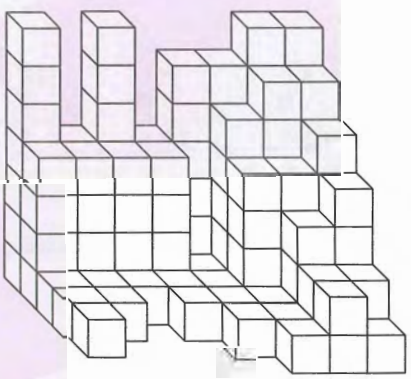
24.



$\Rightarrow a^3 + b^3 = ?$

A) 12 B) 16 C) 27 D) 35 E) 64

25.

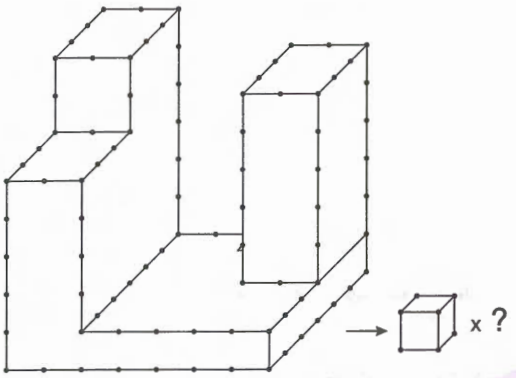


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there given figure above?

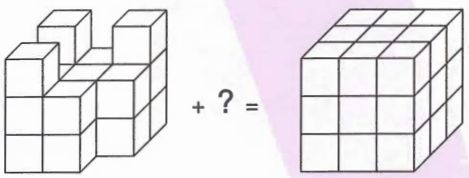
A) 120 B) 121 C) 122 D) 123 E) 124

26.

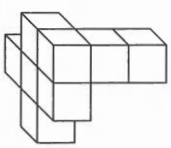


A) 130 B) 132 C) 134 D) 136 E) 138

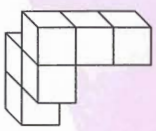
27.



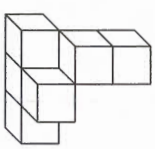
A)



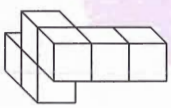
B)



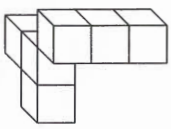
C)



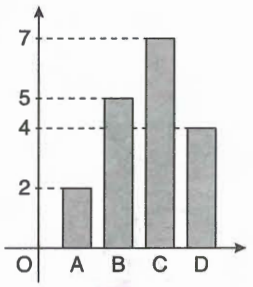
D)



E)



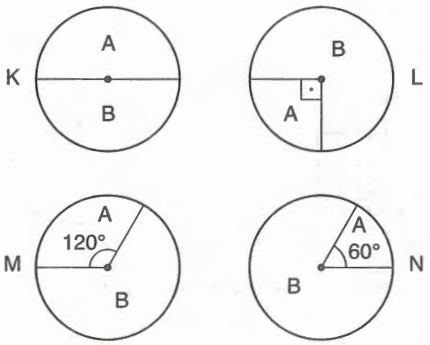
28.

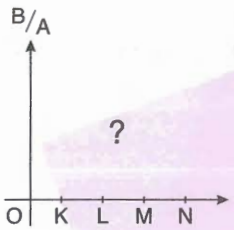


$\Rightarrow \alpha + \beta - \theta - \gamma = ?$

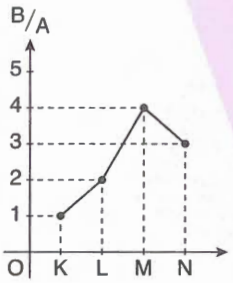
A) 100 B) 80 C) 70 D) 60 E) 50

29.

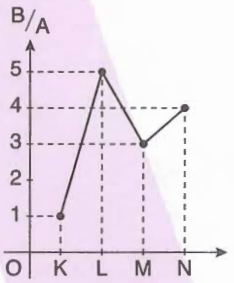




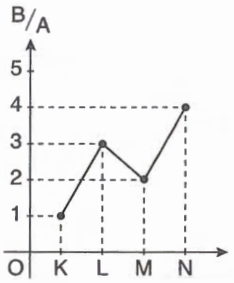
A)



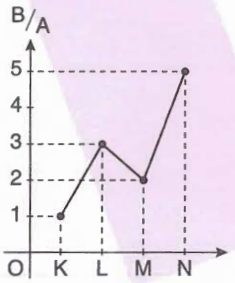
B)



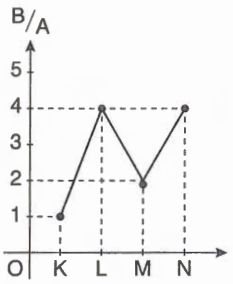
C)



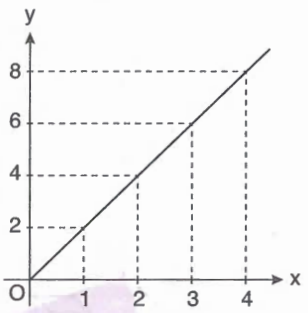
D)



E)



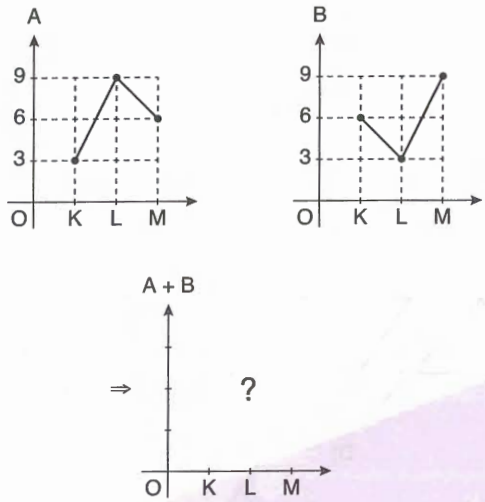
30.



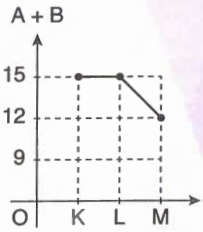
$y = 56$
$\Rightarrow x = ?$

A) 14 B) 28 C) 32 D) 34 E) 36

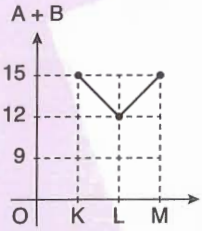
31.



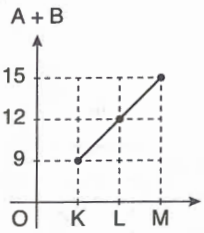
A)



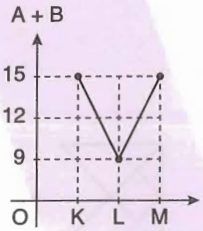
B)



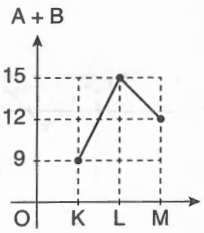
C)



D)

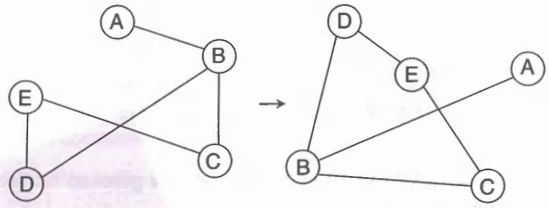


E)



32 – 33 soruları aşağıdaki bilgilere göre cevaplayınız.

Answer the questions 32 – 33 according to the information below.



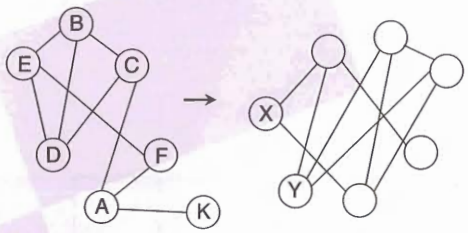
Şekil I
Figure I

Şekil II
Figure II

K, L, M, N ve P harfleri I. şekildeki gibi birbirine bağlanmıştır. I. şekildeki bağlantı sayıları ve birbirine bağlanan harfler değişmemek koşuluyla II. şekil elde edilmiştir.

Letters K, L, M and P are linked as in Figure I. Figure II. has been constructed so as not to change which letters are linked to which, and the number of links made with each letter, in figure I.

32.



Şekil I
Figure I

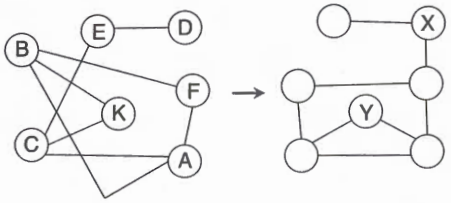
Şekil II
Figure II

II. şekilde X ve Y nin yerine gelmesi gereken harfleri bulunuz.

Find the letters that correspond to X and Y in figure II.

	X	Y
A)	A	B
B)	F	C
C)	D	B
D)	C	D
E)	F	B

33.



Şekil I
Figure I

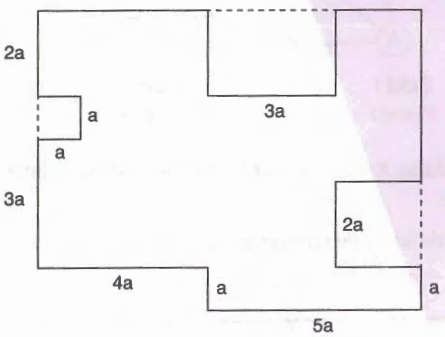
Şekil II
Figure II

II. şekilde X ve Y nin yerine gelmesi gereken harfleri bulunuz.

Find the letters that correspond to X and Y in figure II.

	X	Y
A)	D	B
B)	B	F
C)	K	C
D)	F	E
E)	E	F

34.

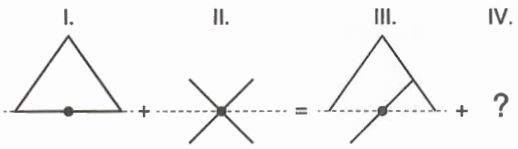


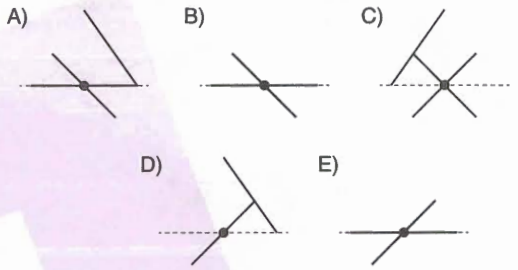
Yukarıdaki şeklin çevresi kaç a'dır?

What is the perimeter of the given figure above, in unit of a?

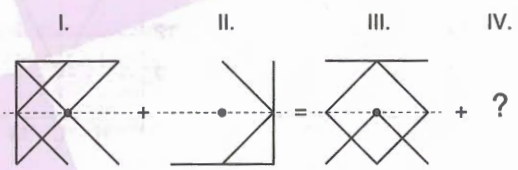
A) 40 B) 41 C) 42 D) 43 E) 44

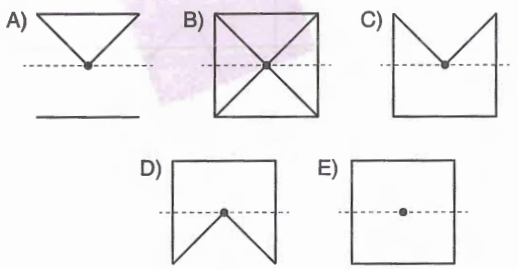
35.



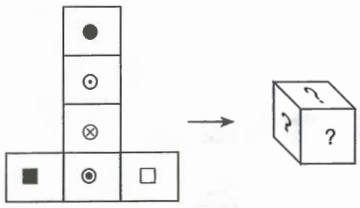


36.



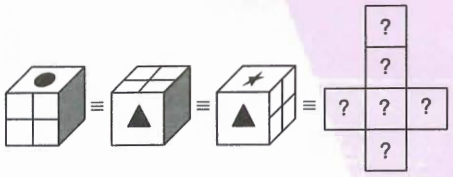


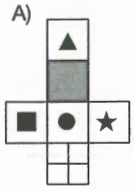
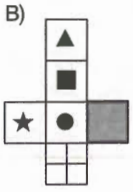
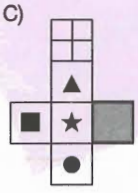
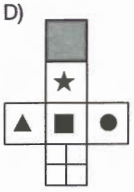
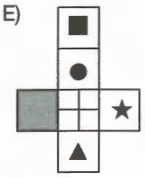
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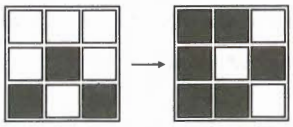


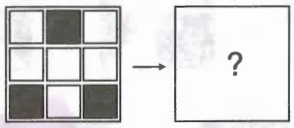
A) 
B) 
C) 
D) 
E) 

38.

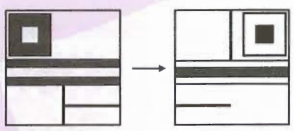


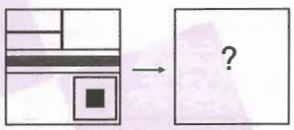
A) 
B) 
C) 
D) 
E) 

39. I. 

II. 

A) 
B) 
C) 
D) 
E) 

40. I. 

II. 

A) 
B) 
C) 
D) 
E) 

41. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which figure is the odd one out?

A) 

B) 

C) 

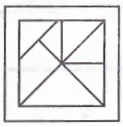
D) 

E) 

42. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which figure is the odd one out?

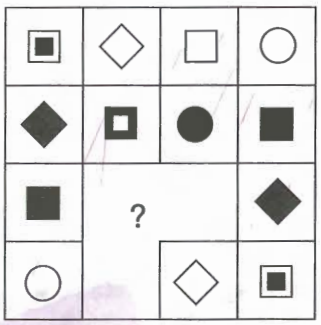
A) 

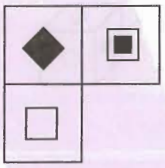
B) 

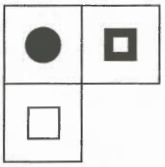
C) 

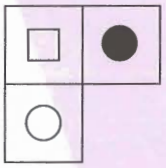
D) 

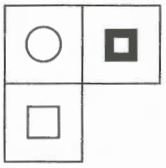
E) 

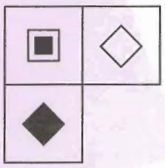
43. 

A) 

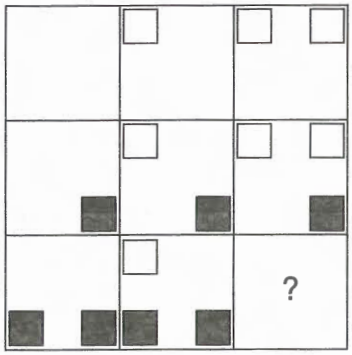
B) 

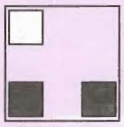
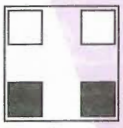
C) 

D) 

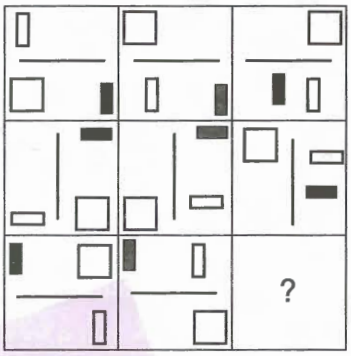
E) 

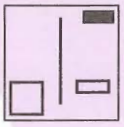
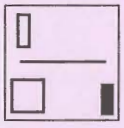
44.



A) 
B) 
C) 
D) 
E) 

45.



A) 
B) 
C) 
D) 
E) 

46. $3(x-4)+6(2-x)=3-\frac{x}{2}$

$\Rightarrow x=?$

A) $\frac{5}{6}$ B) $-\frac{5}{6}$ C) $\frac{6}{5}$ D) $-\frac{6}{5}$ E) $\frac{1}{5}$

47. $a, b, c \in Z$

$(abc)_5+(133)_5=147$

$\Rightarrow a+b+c=?$

A) 12 B) 11 C) 10 D) 8 E) 7

48. $\underbrace{8^2+8^2+8^2+\cdots+8^2}_{8 \text{ tane } (8 \text{ times})}=A$

$\Rightarrow \frac{A}{4}=?$

A) 2^{14} B) 2^9 C) 2^8 D) 2^7 E) 2^6

49. $a>b$

$a^2-ab=17$

$ab-b^2=2$

$\Rightarrow b-a=?$

A) 19 B) – 1 C) 3 D) 1 E) – 19

50. $x<0<y$

$\Rightarrow \sqrt{(x-y)^2}-|y|+2|x|=?$

A) – 3x B) 2x C) 0 D) – 2y E) – 3y

51. $A=[-4, 2)$

$B=[-2, 9]$

$\Rightarrow A' \cap B=?$

A) $[-2, 9)$ B) $\varnothing$ C) $[2, \infty)$

D) $(-4, 9]$ E) $[2, 9]$

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52. $A = \{1, 2, 3, 4\}$

$f: A \to A$

$f\begin{pmatrix} 1 & 2 & 3 & 4 \\ 2 & 3 & 1 & 4 \end{pmatrix}$

$\Rightarrow f(3) + f^{-1}(2) + f^{-1}(1) = ?$

A) 2 B) 3 C) 5 D) 7 E) 10

53. P(x) polinom (*P(x) polynomial*)

$(x - 1) \cdot P(x - 1) = 2x^2 + mx + 3$

$\Rightarrow P(1) + P(2) = ?$

A) 9 B) 6 C) 5 D) 4 E) 2

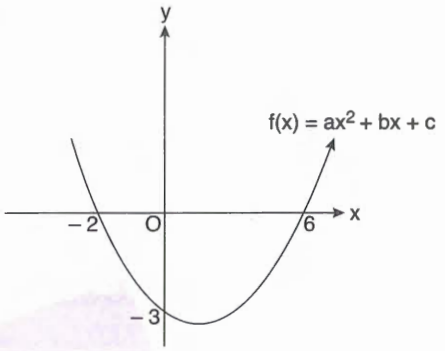
54. $x^2 - |x + 2| - 4 = 0$

$S.S. = \{x_1, x_2\}$

$\Rightarrow \dfrac{x_1 \cdot x_2}{x_1 + x_2} = ?$

A) 2 B) – 3 C) – 4 D) – 6 E) 6

55.



$\Rightarrow f(4) = ?$

A) – 2 B) – 3 C) – 4 D) 3 E) 4

56. $\sin 40° = a$

$\Rightarrow \cos 40° = ?$

A) $\sqrt{1 - a^2}$ B) $a^2 - 1$ C) $\dfrac{\sqrt{1 - a^2}}{2}$

D) $\sqrt{1 - a}$ E) $1 - a^2$

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57. $0 < x < \frac{\pi}{2}$

$\cot x = \frac{1}{2}$

$\Rightarrow \sin^2 x + \sin x \cdot \cos x = ?$

A) $\frac{6}{5}$ B) $\frac{1}{\sqrt{5}}$ C) 1 D) $\frac{1}{5}$ E) $\frac{4}{5}$

58. $\cos^6 70 + \sin^6 70 + 3 \cdot \sin^2 70 \cdot \cos^2 70 = ?$

A) 2 B) 1 C) 0 D) -1 E) -2

59. $z \in C$

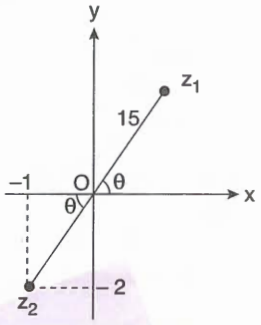
$(1-2i) \cdot \bar{z} - 4 = z$

$\Rightarrow z = ?$

A) $-3+i$ B) $-2i$ C) $2i-2$

D) $-3-3i$ E) $2-2i$

60.



$|z_1| = 15$ br

$z_2 = -1-2i$

$\Rightarrow \frac{z_1}{z_2} = ?$

A) $\sqrt{5}$ B) $3\sqrt{5}$ C) $-\sqrt{5}$ D) $-3\sqrt{5}$ E) $\sqrt{15}$

61. $5 \cdot 4^x = 8^x$

$\Rightarrow x = ?$

A) $\log_5 2$ B) $\log_4 5$ C) $\log_5 9$ D) $\log_2 5$ E) 5

62. $\sum_{k=1}^{n} k = A$

$\sum_{k=1}^{n} (6k^3 + k)$ ifadesinin A türünden değeri nedir?

What is the value of $\sum_{k=1}^{n} (6k^3 + k)$ *in terms of A ?*

A) $6A^3$ B) $6A + 1$ C) $6A^2 + A$ D) $A + 6$ E) $A^3 + A$

63. $\lim_{x \to 0^-} (4^x + 4^{\frac{1}{x}}) + \lim_{x \to -\infty} \left(\frac{6}{5}\right)^x = ?$

A) 0 B) 1 C) -1 D) $-\infty$ E) ∞

64. $\dfrac{\lim\limits_{x \to 1} \dfrac{x-1}{\tan(x-1)}}{\lim\limits_{x \to 0} \dfrac{\sin^2(x)}{9x^2}} = ?$

A) $\frac{1}{9}$ B) 9 C) 0 D) $\frac{1}{3}$ E) 3

65. a_n pozitif terimli geometrik dizi *(The geometric series with positive terms)*

$a_2 = 1$

$a_6 = \frac{1}{81}$

$\Rightarrow r = ?$

A) 9 B) 3 C) $\frac{1}{3}$ D) $\frac{1}{9}$ E) $\frac{1}{27}$

66. $\lim_{x \to 0} \dfrac{\ln^2(4x+1) + x}{\sin x} = ?$

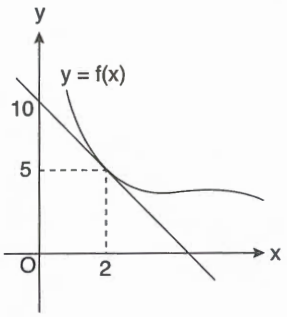
A) 0 B) 1 C) 4 D) e E) 2e

67. $f(x) = (x-2) \cdot (x-3) \cdot (x-4)$

$\Rightarrow \dfrac{1}{f'(2)} + \dfrac{1}{f'(3)} + \dfrac{1}{f'(4)} = ?$

A) 0 B) 2 C) 3 D) 4 E) 9

68.



$g(x) = f(x) \cdot x^2$

$\Rightarrow g'(2) = ?$

A) 5 B) 8 C) 10 D) 12 E) 15

69.

$(goh)(2x-1) = x^2 + 6x$

$h(5) = 4$

$h'(5) = 3$

$\Rightarrow g'(4) = ?$

A) 5 B) 4 C) 3 D) 2 E) 1

70. $\int \frac{1}{x \cdot \ln^3 x} dx = ?$

A) $-\frac{1}{\ln x} + c$ B) $-\frac{1}{2\ln^2 x} + c$ C) $-\frac{1}{3\ln^3 x} + c$

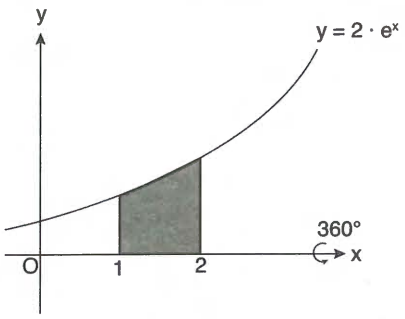
D) $\frac{x}{\ln x} + c$ E) $\frac{2x}{\ln^2 x} + c$

71. $f(x) = \begin{cases} |x| + 1 & x < 1 \\ |x - 3| & 1 \le x \end{cases}$

$\Rightarrow \int_{-1}^{2} f(x)\,dx = ?$

A) 5 B) $\frac{9}{2}$ C) 2 D) $\frac{3}{2}$ E) $\frac{1}{2}$

72.



Taralı alan x ekseni etrafındaki 360° döndürülürse oluşan cismin hacmi nedir?

What is the unit cube of the object which is occured when the shaded area in the given graph is rotated 360 arand the specified axis?

A) $(e^2 - 1)\pi$ B) $2 \cdot (e^2 - 1)\pi$ C) $2e^2 \cdot (e^2 - 1)\pi$

D) $e^2 \cdot (e^2 - 1)\pi$ E) $e \cdot (e^2 - 1)\pi$

73. $\int_0^{\pi/4} \frac{1}{\cos(2x) + 1} dx = ?$

A) -1 B) $-\frac{1}{2}$ C) 0 D) $\frac{1}{2}$ E) 1

74. $\lim_{x \to \infty} \frac{\sqrt[x]{5} - 1}{\sqrt[x]{10} - 1} = ?$

A) ln10 B) ln5 C) log5 D) 1 E) $\frac{1}{2}$

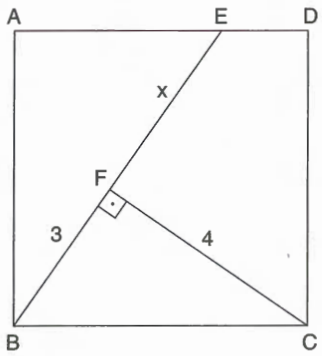
75. $A = \begin{bmatrix} 8 & 0 \\ 0 & 15 \end{bmatrix}$ $B = \begin{bmatrix} 4 & 1 \\ 8 & 2^x \end{bmatrix}$

$|A| = |B|$

$\Rightarrow x = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

76.



ABCD kare *(square)*

$[CF] \perp [BE]$

$|FC| = 4$ br

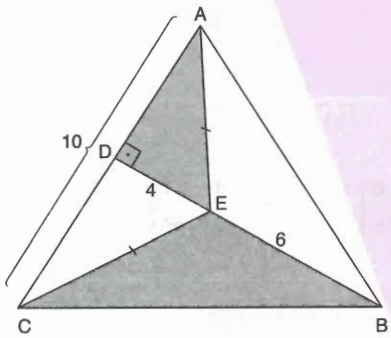
$|BF| = 3$ br

$|FE| = x$ br

$\Rightarrow x = ?$

A) 13 B) 6 C) $\frac{13}{4}$ D) 3 E) $\frac{11}{4}$

77.



$[BD] \perp [AC]$

$|AE| = |EC|$

$|AC| = 10$ br

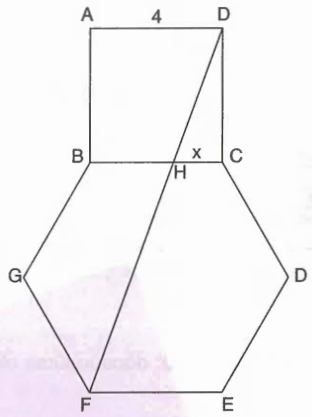
$|DE| = 4$ br

$|EB| = 6$ br

$\Rightarrow A(ADE) + A(ECB) = ?$

A) 10 B) 15 C) 25 D) 30 E) 45

78.



ABCD kare *(square)*

BCDEFG düzgün altıgen *(regular hexagon)*

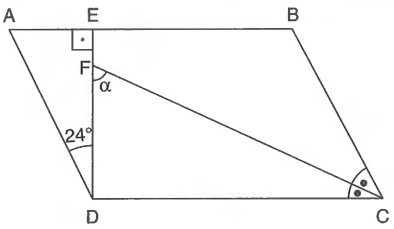
$|AD| = 4$ br

$|HC| = x$

$\Rightarrow x = ?$

A) $2\sqrt{3}$ B) $2-\sqrt{3}$ C) $2\sqrt{3}-2$ D) $2-2\sqrt{3}$ E) 2

79.



ABCD paralelkenar *(paralelogram)*

[DE] ⊥ [AB]

[CF] açıortay *(bisector)*

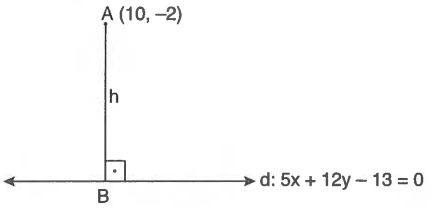
$m(\widehat{ADE}) = 24°$

$m(\widehat{DFC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 47 B) 57 C) 77 D) 123 E) 133

80.



$|AB| = h$

$\Rightarrow h = ?$

A) 3 B) 2 C) $\frac{3}{2}$ D) 1 E) $\frac{1}{2}$

DENEME SINAVI 19 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	B	C	E	B	D	C	B	D	E	D	A	D	C	D	E	E	E	D	A

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
B	A	D	D	D	B	A	B	D	B	C	B	E	C	B	C	D	B	D	D

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
B	E	B	D	B	D	D	D	B	A	E	C	D	D	B	A	A	B	E	D

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
D	C	B	B	C	B	A	C	D	B	B	C	D	C	C	C	C	C	B	D

DENEME SINAVI 20
TRIAL EXAM 20

1.

30	18	64	73	25	9
70	82	36	27	75	?

A) 36 B) 19 C) 72 D) 91 E) 81

2.

5	8	11	4
26	41	56	A
62	98	B	50

⇒ A + B = ?

A) 149 B) 151 C) 153 D) 155 E) 157

3. I. 6 ★ 4 = 34

II. 9 ★ 1 = 19

III. 7 ★ 3 = 31

IV. 8 ★ 4 = ?

A) 36 B) 44 C) 48 D) 56 E) 63

4. I. ■ 1259 → 59

II. ■ 275 → 35

III. 216 ▲ → 24

IV. 536 ▲ → 56

V. ■ 644 → 44 ▲ → 42

VI. ■ 825 ▲ → ?

A) 12 B) 15 C) 25 D) 45 E) 225

5. I. a ■ 6 = a^3 + 12

II. 5 ■ 4 = 33

III. 7 ■ 2 = 11

IV. 6 ■ 6 = ?

A) 39 B) 48 C) 84 D) 150 E) 228

6.

I.

8		9
	5	
3		5

II.

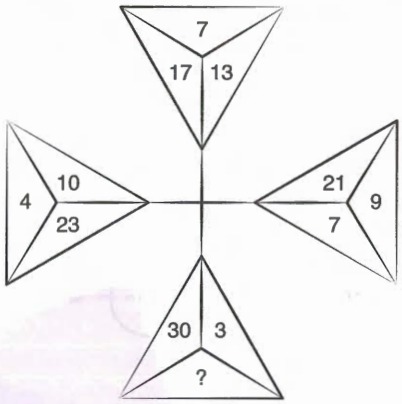
12		14
	6	
3		7

III.

39		26
	?	
14		2

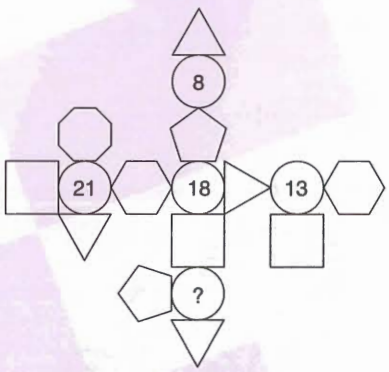
A) 3 B) 4 C) 7 D) 9 E) 11

7.



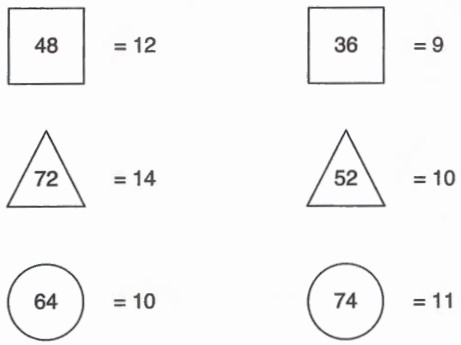
A) 4 B) 12 C) 23 D) 34 E) 35

8.



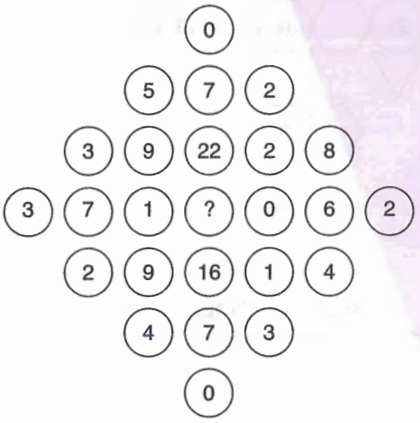
A) 10 B) 11 C) 12 D) 13 E) 14

9.



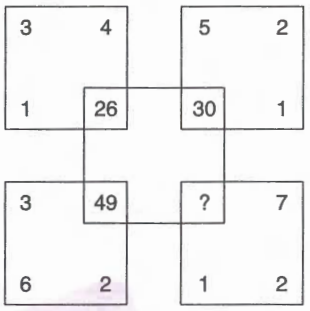
A) 2 B) 4 C) 12 D) 16 E) 24

10.



A) 16 B) 17 C) 19 D) 21 E) 24

11.



A) 30 B) 48 C) 50 D) 54 E) 62

12.

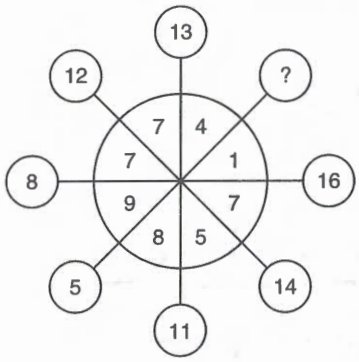
3	4	7	2	9	3
2	2	1	9	1	6
5	6	9	2	0	9

1	7	8	6	3	2
4	3	2	8	1	1
6	1	A	4	4	B

⇒ A + B = ?

A) 2 B) 3 C) 4 D) 5 E) 6

13.



A) 18 B) 17 C) 12 D) 9 E) 5

14.

I.	6	8	27	7	3
II.	9	5	21	6	4
III.	8	7	47	9	1
IV.	6	6	20	8	2
V.	7	9	?	5	4

A) 32 B) 38 C) 40 D) 43 E) 48

15.

+	a	b	c
a		7	
b			
c	5 – c		

$\Rightarrow b - 2c = ?$

A) 1 B) 2 C) 5 D) 7 E) 12

16.

+	a	b	c	d
a		c + d		b + c
b				a + c
c				

$\Rightarrow a + b + d = ?$

A) d B) 2d C) 3d D) 4d E) 5d

17.

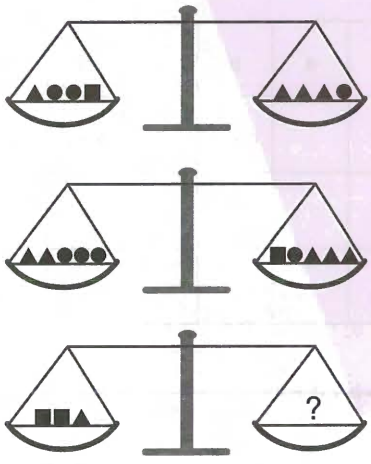
+	c	d
a		13
b	14	

×	c	d
a	72	
b		24

$\Rightarrow a \cdot b + c \cdot d = ?$

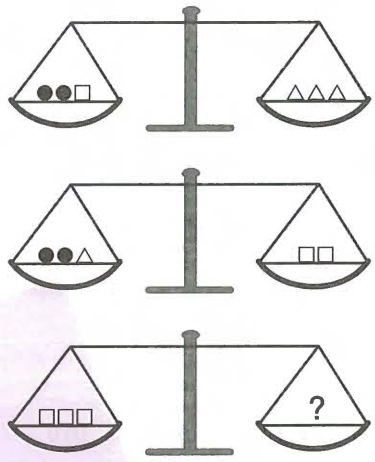
A) 48 B) 63 C) 86 D) 92 E) 104

18.



A) ▲▲ B) ▲●■ C) ■■
D) ▲●■■ E) ■●▲▲

19.



A) △ B) △△ C) △△△
D) △△△△ E) △△△△△

20.

$$\begin{array}{r} KL \\ \times\ \ 8 \\ \hline MNP \end{array} \qquad \begin{array}{r} KL \\ \times\ \ 9 \\ \hline KRT \end{array} \qquad \begin{array}{r} MNP \\ +\ KRT \\ \hline 391 \end{array}$$

$\Rightarrow K + L = ?$

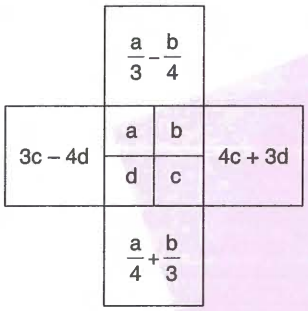
A) 4 B) 5 C) 7 D) 9 E) 11

21.

$$\begin{array}{r|l} X & 6 \\ - & Y \\ \hline 5 & \end{array} \qquad \begin{array}{r|l} Y & 5 \\ - & Z \\ \hline 4 & \end{array} \qquad \begin{array}{r|l} X+Y & 35 \\ - & Z \\ \hline T & \end{array}$$

$\Rightarrow T = ?$

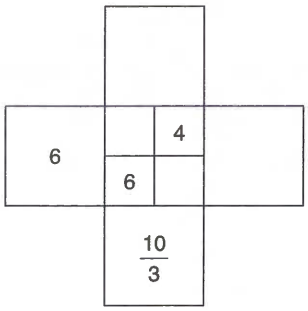
A) 4 B) 17 C) 29 D) 33 E) 34



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif tamsayıyı içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir; fakat, bunlarla yapılacak işlemler her soruda aynıdır.

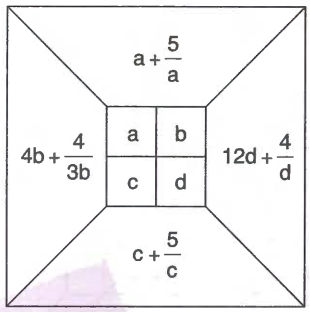
The figure above has been organized according to various operations using four positive integers represented by the letters a, b, c and d. The integers represented by the letters may change from question to question, but the operations to be done remain the same.

22.



$\Rightarrow a + c = ?$

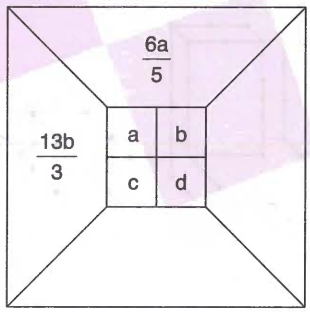
A) 8 B) 10 C) 16 D) 18 E) 22



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif tamsayıyı içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir; fakat, bunlarla yapılacak işlemler her soruda aynıdır.

The figure above has been organized according to various operations using four positive integers represented by the letters a, b, c and d. The integers represented by the letters may change from question to question, but the operations to be done remain the same.

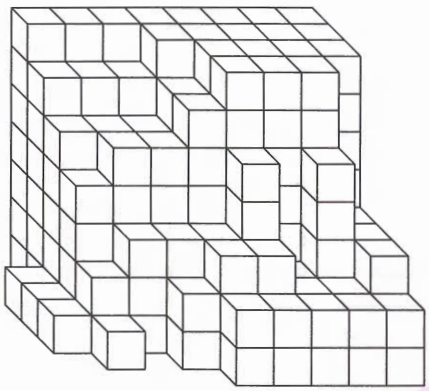
23.



$\Rightarrow a \cdot b = ?$

A) 2 B) 5 C) 7 D) 9 E) 10

24.

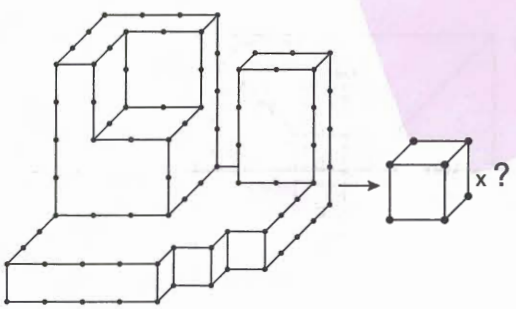


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there given figure above?

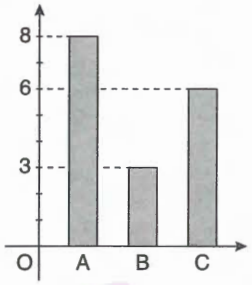
A) 254 B) 255 C) 256 D) 257 E) 258

25.



A) 65 B) 66 C) 67 D) 68 E) 69

26.



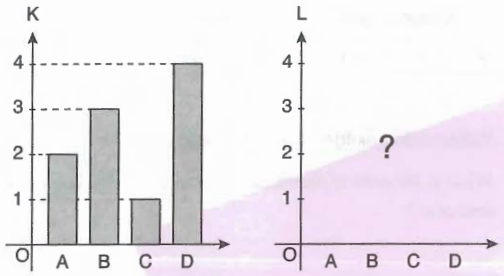
A + B + C = 340

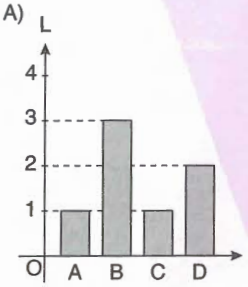
⇒ B + C = ?

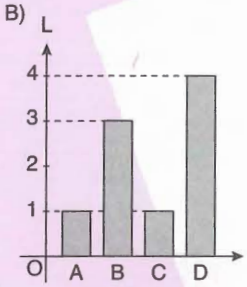
A) 180 B) 200 C) 240 D) 260 E) 280

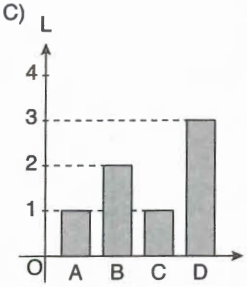
27.

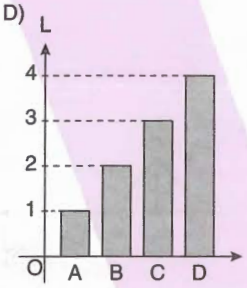
	A	B	C	D
K	26	39	13	52
L	16	48	16	32

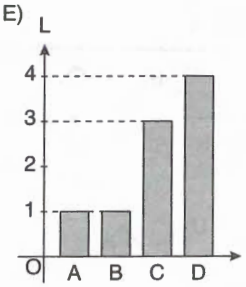


A)


B)


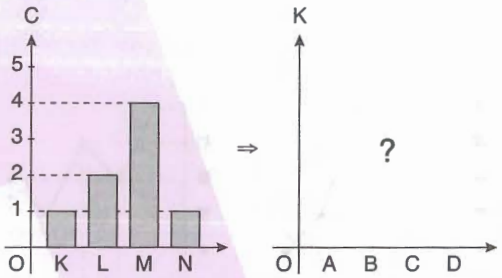
C)


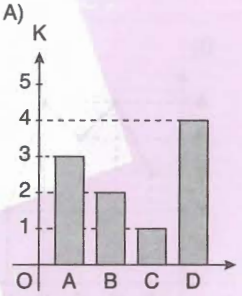
D)


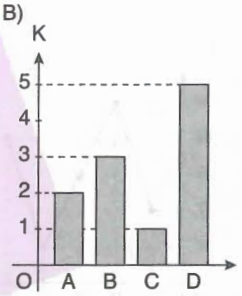
E)


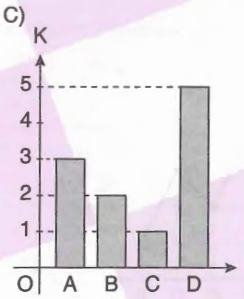
28.

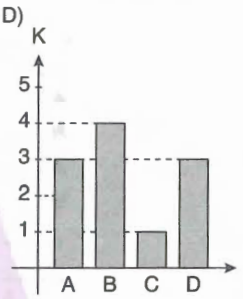
	K	L	M	N
A	3	2	1	5
B	4	2	3	2
C	1	2	4	1
D	3	3	1	2

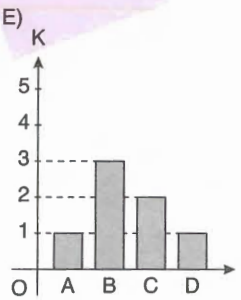


A)


B)


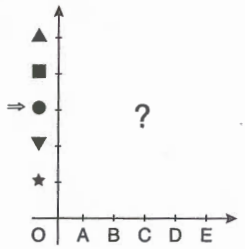
C)


D)


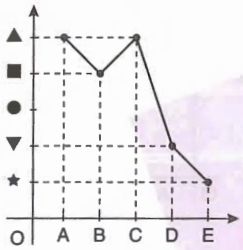
E)


29.

	▲	■	●	▼	★
A	✓				
B		✓			
C	✓				
D				✓	
E					✓



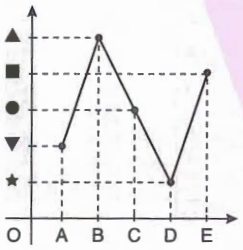
A)



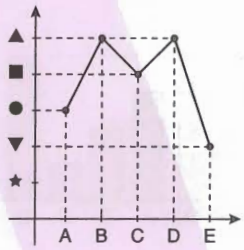
B)



C)



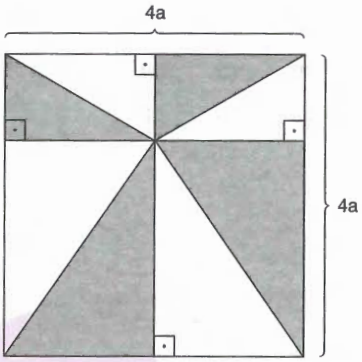
D)



E)



30.

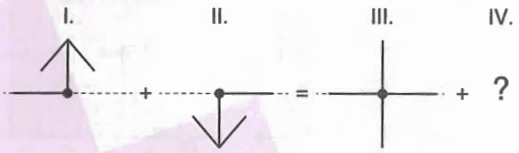


Yukarıdaki şekilde, taralı alan kaç a^2'dir?

What is the area of the shaded field in the given figure above, in unit of a^2?

A) 8 B) 10 C) 12 D) 14 E) 16

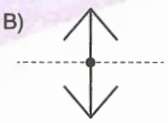
31.



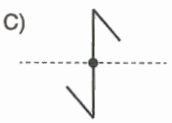
A)



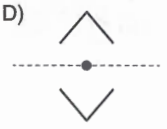
B)



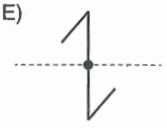
C)



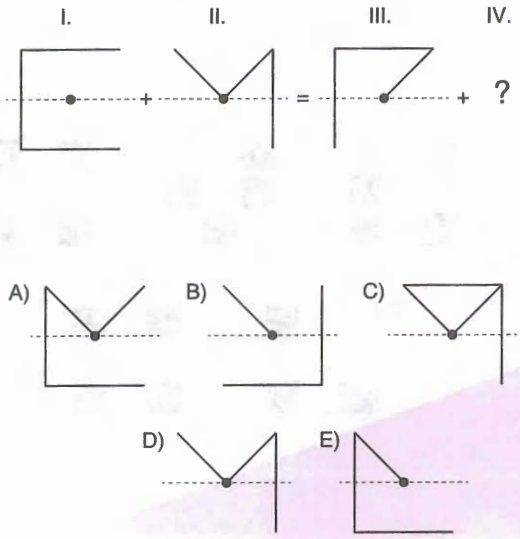
D)



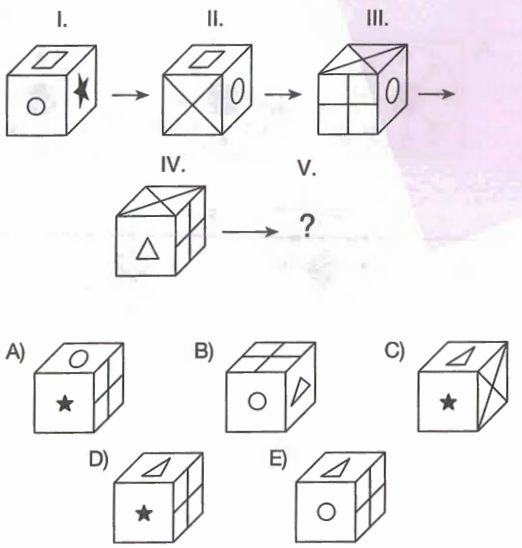
E)



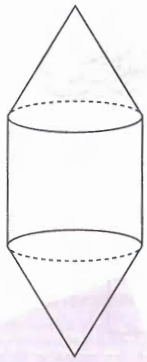
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33.

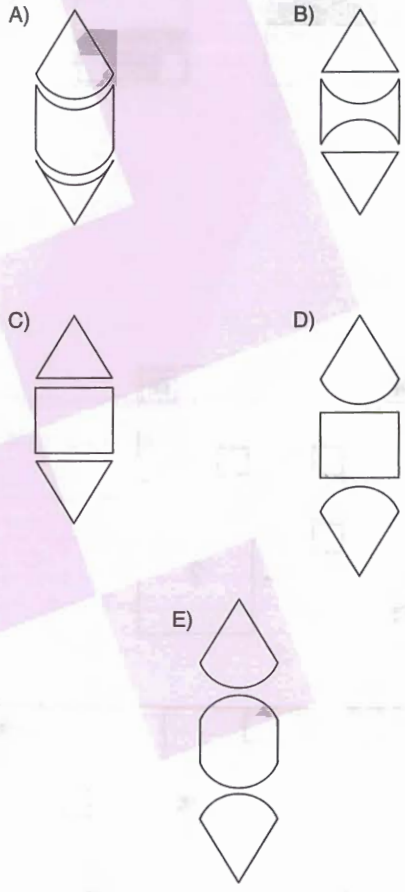


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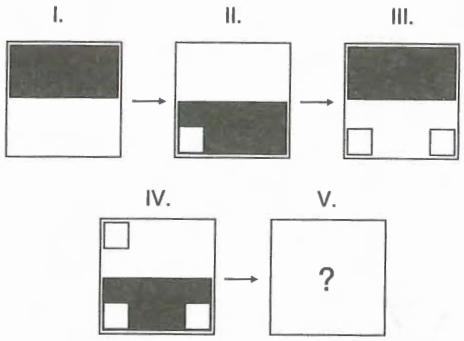


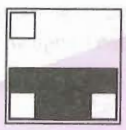
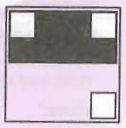
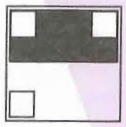
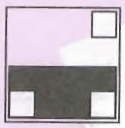
Yukarıdaki üç boyutlu geometrik şeklin, iki boyutta açılmış hali aşağıdakilerden hangisidir?

Which of the following is the unfolded form of the given 3D figure above?

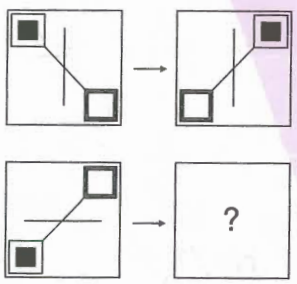


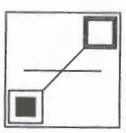
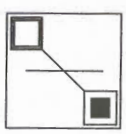
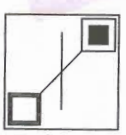
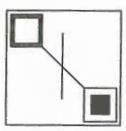
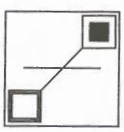
35.



A) 
B) 
C) 
D) 
E) 

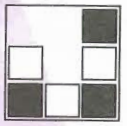
36.



A) 
B) 
C) 
D) 
E) 

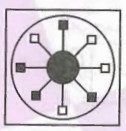
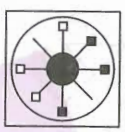
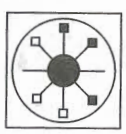
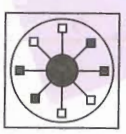
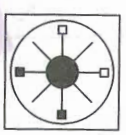
37. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which figure is the odd one out?

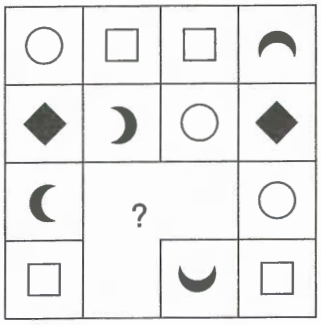
A) 
B) 
C) 
D) 
E) 

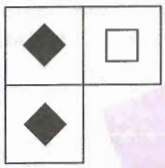
38. Aşağıdakilerden hangisi diğerlerinden farklıdır?

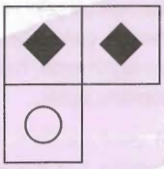
Which figure is the odd one out?

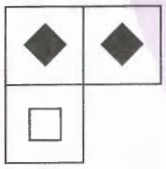
A) 
B) 
C) 
D) 
E) 

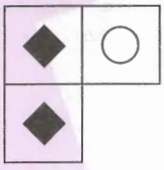
39.

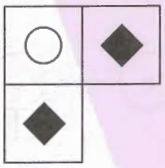


A)


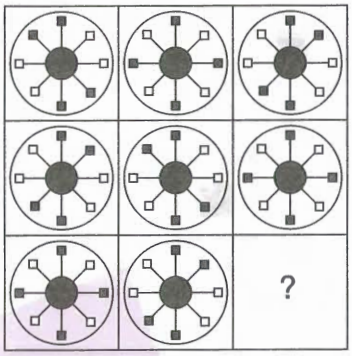
B)


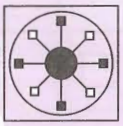
C)


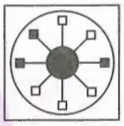
D)


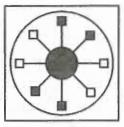
E)


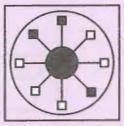
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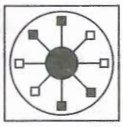


A)


B)


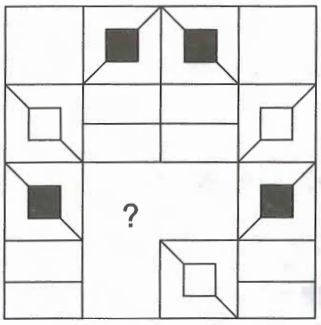
C)


D)


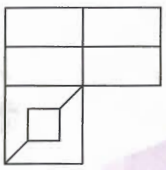
E)


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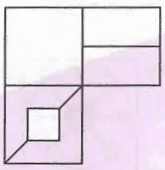
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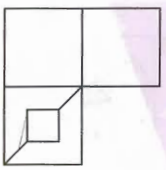
A)



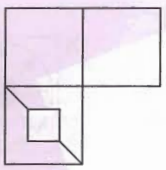
B)



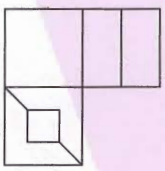
C)



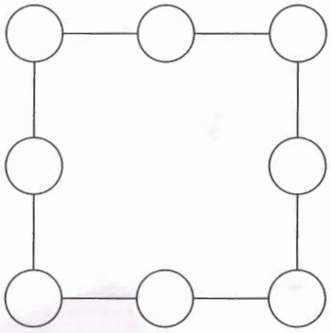
D)



E)

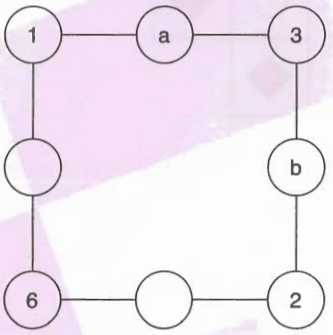


42.



Yukarıda, kenarları üzerinde 8 tane çember bulunan karesel bir şekil verilmiştir. 1'den 8'e kadar olan rakamların herbiri çemberlerin içine yerleştiriliyor. Aşağıda verilen yerleştirmede, her bir kenar üzerinde bulunan rakamların toplamı eşittir.

A quadratic form with 8 circles on its sides is given. Numbers between 1 to 8 is placed in the circles. In the placement given below sum of all the numbers on each side of the figure in equal to each other?

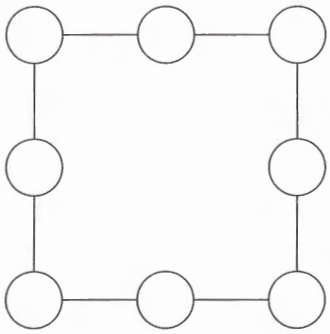


Buna göre a + b toplamı kaçtır?

According to the information above what is a + b?

A) 11 B) 15 C) 13 D) 9 E) 10

43.



Yukarıda, kenarları üzerinde 8 tane çember bulunan karesel şekil verilmiştir. 1'den 8'e kadar olan rakamların her biri çemberlerden birine yerleştiriliyor. Yapılan yerleştirmelerde, herbir kenar üzerinde bulunan rakamların toplamı 13'tür. Bu yerleştirmede köşelerde bulunan rakamların toplamı kaçtır?

A quadratic form with 8 circles on its sides is given. Numbers between 1 to 8 is placed in the circles. In one of the placements, the sum of the numbers on each side is 13. In this placement what is the sum of the numbers written in the edges?

A) 10 B) 12 C) 13 D) 14 E) 16

1			K
3			
5	L		
7			10

Yukarıda verilen 4x4'lük tablonun hücrelerine 1'den 16'ya kadar olan tüm doğal sayılar aşağıdaki kurallara göre yerleştirilecektir.

– Sayılar her satırda artan sırada olacaktır.

– Satırlardaki sayıların toplamı eşit olacaktır.

All the natural numbers from 1 to 16 will be placed in to the cells of the table 4x4 given above according to the rule below.

– In each row numbers will be in the increasing squence

– In a row the sum of the numbers will be equal

44 - 45. soruları yukarıdaki bilgiye göre cevaplayınız.

Answer the questions 44 - 45 according to the information above.

44. Buna göre, K + L toplamı kaçtır?

According to the information above what is the sum of K + L?

A) 18 B) 20 C) 22 D) 24 E) 26

45. Buna göre, üçüncü sütundaki sayıların toplamı kaçtır?

According to the information above what is the sum of the numbers in the third column?

A) 40 B) 42 C) 44 D) 46 E) 48

46. $M = 1^2 + 2^2 + 3^2 + ... + 20^2$

$N = 2 \cdot 1 + 3 \cdot 2 + 4 \cdot 3 + ... + 21 \cdot 20$

$\Rightarrow N - M = ?$

A) 190 B) 210 C) 220 D) 240 E) 250

47. $\left[\dfrac{2}{1-\frac{3}{4}} + \dfrac{\frac{3}{4}-1}{3}\right] : \dfrac{1}{2} - \dfrac{5}{6} = ?$

A) -15 B) -5 C) 0 D) 5 E) 15

48. $\dfrac{5}{3 - \dfrac{2}{4 - \dfrac{1}{x-1}}} = 1$

$\Rightarrow x = ?$

A) $\frac{1}{2}$ B) $\frac{3}{2}$ C) $\frac{4}{3}$ D) $\frac{6}{5}$ E) $\frac{9}{4}$

49. $x, y \in R$

$$\left.\begin{aligned} 2^x \cdot 5^y &= 2500 \\ 2^y \cdot 5^x &= 40000 \end{aligned}\right\}$$

$\Rightarrow x + y = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

50. $\sqrt{(-7)^2} + \sqrt[5]{(-2)^5} - \sqrt[4]{(-2)^4 . 4^2} = ?$

A) -4 B) -1 C) 1 D) 2 E) 3

51. $\dfrac{\sqrt{2\sqrt[3]{\frac{1}{4}\sqrt[5]{8}}}}{\sqrt[3]{2}} = ?$

A) $2^{\frac{2}{15}}$ B) $2^{-\frac{1}{5}}$ C) $2^{-\frac{2}{15}}$ D) $2^{\frac{1}{15}}$ E) $2^{-\frac{1}{15}}$

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52. $\left.\begin{array}{l} a-b=4 \\ a^3-b^3=184 \end{array}\right\} \Rightarrow a\cdot b=?$

A) 2 B) 4 C) 6 D) 8 E) 10

53. $a \in Z$

$a\cdot b=\frac{13}{20}$

$40<\frac{13}{b}<140$

$\Rightarrow \sum a=?$

A)17 B) 18 C) 19 D) 20 E) 21

54. $2\cdot 3^7+5\cdot 3^6+21=(x)_9$

$\Rightarrow x=?$

A) 12023 B) 11023 C) 10223 D) 1323 E) 1223

55. $x \bigstar y=\begin{cases} x-y & x>y \\ x+y+(x^2 \bigstar y) & x\le y \end{cases}$

$\Rightarrow (-3) \bigstar 2=?$

A) -1 B) 5 C) 6 D) 7 E) 8

56. $\beta=\{x\in Z^+ \mid 49\equiv x \pmod{10},\ x<200\}$

$\Rightarrow n(\beta)=?$

A) 18 B) 19 C) 20 D) 21 E) 22

57. $\lim\limits_{x\to\frac{\pi}{4}}\left(\frac{\sin x-\frac{\sqrt{2}}{2}}{\cos x-\frac{\sqrt{2}}{2}}\right)=?$

A) $-\frac{\sqrt{2}}{2}$ B) -1 C) 0 D) 1 E) $\frac{\sqrt{2}}{2}$

58. $\lim\limits_{n\to\infty} \dfrac{2^2+4^2+....+(2n)^2}{(2n)^3} = ?$

A) $\frac{2}{3}$ B) 0 C) 1 D) $\frac{1}{2}$ E) $\frac{1}{6}$

59. $f(x) = \begin{cases} ax+b & ,x>1 \\ x^2+3x+2 & ,x\le 1 \end{cases}$

f fonksiyonu x = 1 noktasında türevlenebilirdir.

Derivative of function f can be taken on point 1.

$\Rightarrow a-b = ?$

A) 4 B) 2 C) 1 D) 0 E) −6

60. $\int_0^2 |x^2-x|\,dx = ?$

A) 1 B) $\frac{1}{2}$ C) $\frac{1}{3}$ D) $\frac{1}{4}$ E) $\frac{1}{6}$

61. $\sum_{n=1}^{\infty} \dfrac{2}{(-3)^n} = ?$

A) 2 B) $\frac{3}{4}$ C) $\frac{4}{3}$ D) $-\frac{3}{4}$ E) $-\frac{1}{2}$

62. $A = \begin{bmatrix} 1 & 3 & 4 \\ 2 & 4 & 2 \\ 3 & 0 & 7 \end{bmatrix}$

$\Rightarrow M_{23} = ?$

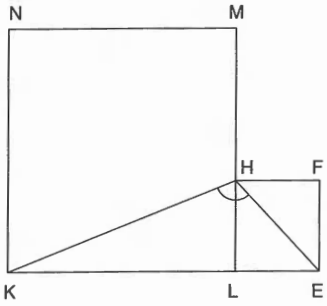
A) 8 B) −9 C) 4 D) 12 E) 16

63. $\log_3 7 = a$

$\Rightarrow \log_7 21 + \log_7 63 = ?$

A) $\frac{3a+2}{a}$ B) $\frac{3+2a}{a}$ C) $\frac{a}{3+2a}$ D) $\frac{a}{3a+2}$ E) $\frac{a+2}{a+3}$

64.



KLMN ve LEFH karedir. *(Square)*

$|KL| = 2\,|LE|$

$\Rightarrow \sin(\widehat{KHE}) = ?$

A) $\frac{3\sqrt{10}}{10}$ B) $\frac{2\sqrt{7}}{7}$ C) $\frac{2\sqrt{5}}{5}$ D) $\frac{5\sqrt{3}}{3}$ E) $\frac{3\sqrt{2}}{4}$

65. $z \in C$

$i^2 = -1$

$z = \frac{1+i}{1-i} + \frac{1-i}{1+i}$

$\Rightarrow |z| = ?$

A) 0 B) 1 C) 2 D) 3 E) 4

66. $\frac{\cos x}{\sec x + \tan x} - \frac{\cos x}{\tan x - \sec x} = ?$

A) 2 B) -2 C) $-\cos x$

D) $-2\sin x$ E) $\cos x$

67. $x \in Z$

$\frac{(x+3)\cdot|x-1|}{(x^2-4)\cdot x} < 0$

$\Rightarrow$ S. S. = ?

A) {1} B) $\varnothing$ C) Z

D) {– 3, – 2, –1} E) {1, 2}

68. $A = \{1, 2, 3, 4\}$

$f: A \to A \quad g: A \to A$

$f\begin{pmatrix}1&2&3&4\\4&1&3&2\end{pmatrix} \quad (fog)\begin{pmatrix}1&2&3&4\\2&1&4&3\end{pmatrix}$

$\Rightarrow g = ?$

A) $\begin{pmatrix}1&2&3&4\\2&3&1&4\end{pmatrix}$ B) $\begin{pmatrix}1&2&3&4\\4&1&2&3\end{pmatrix}$

C) $\begin{pmatrix}1&2&3&4\\1&2&4&3\end{pmatrix}$ D) $\begin{pmatrix}1&2&3&4\\4&2&1&3\end{pmatrix}$

E) $\begin{pmatrix}1&2&3&4\\3&2&1&4\end{pmatrix}$

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69. $\dfrac{(x-y)^2+5(x-y)-50}{x^2-2xy+y^2-25} = ?$

A) $\dfrac{x-y+10}{x-y+5}$ B) $\dfrac{x-y+5}{x-y-5}$ C) $\dfrac{x-y-5}{x-y+5}$

D) $\dfrac{x-y-10}{x-y-5}$ E) $\dfrac{x-y-2}{x-y}$

70. $f(x) = \sqrt{x} \cdot \operatorname{cosec}\sqrt{x}$

$\Rightarrow f'\left(\dfrac{\pi^2}{4}\right) = ?$

A) $\dfrac{2}{\pi}$ B) $\dfrac{1}{\pi}$ C) 0 D) $-\dfrac{3\pi}{2}$ E) $-\dfrac{3}{2\pi}$

71. $x \in R$

$a = 7x - x^2$

$b = -x - 2$

$\Rightarrow \max(a + b) = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

72. $\log_5(x^2 - 4x) < 1$

$\Rightarrow$ S.S. = ?

A) $(-1, 5)$ B) $(-\infty, 5)$ C) $(-\infty, -1)$

D) $(4, 5)$ E) $(5, \infty)$

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73. f(x) tek fonksiyon *(f odd function)*

f(x): R → R

g(x): R → R

f(2) = – 5

$g(x) = 2f(-x) - x^5$

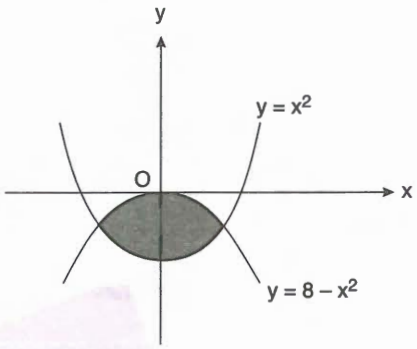
g(2) = ?

A) 46 B) 22 C) 0 D) – 22 E) – 32

74. $\lim_{x \to \infty} \left(\frac{\cos(x-4)}{x+6} \right) = ?$

A) – ∞ B) 0 C) ∅ D) 1 E) ∞

75.

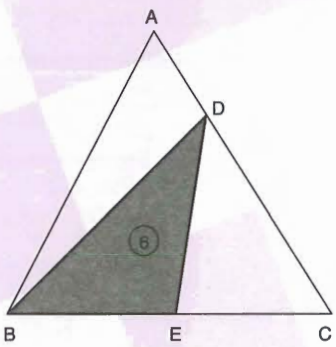


Taralı alan = ?

(Shaded area) = ?

A) 16 B) $\frac{32}{3}$ C) 32 D) $\frac{48}{3}$ E) $\frac{64}{3}$

76.



2|BE| = 3|EC|

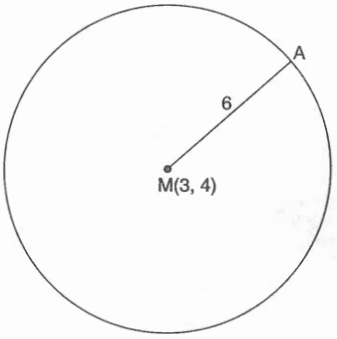
2|AD| = |DC|

A(BDE) = 6 br²

⇒ A(ABC) = ?

A) 10 B) 15 C) 20 D) 25 E) 28

77.



M (3, 4)

|MA| = 6 br

⇒ M merkezli çemberin denklemi nedir?

What is the circle equation with a center M ?

A) $x^2 + y^2 + 6x + 8y - 11 = 0$

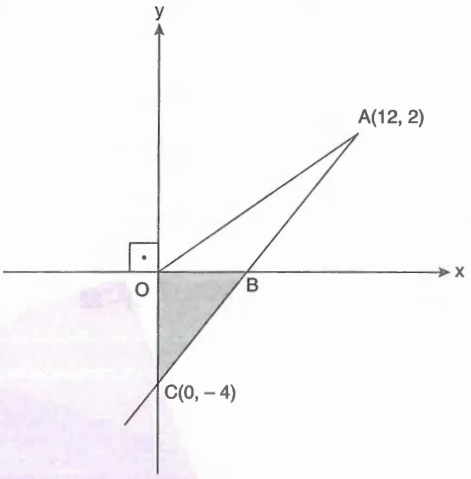
B) $x^2 + y^2 - 3x + 4y + 11 = 0$

C) $x^2 + y^2 - 6x - 8y - 11 = 0$

D) $x^2 + y^2 + 6x + 8y + 11 = 0$

E) $x^2 + y^2 + 3x + 84 - 36 = 0$

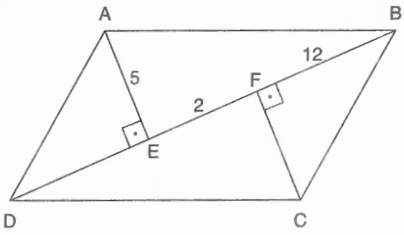
78.



⇒ A(OBC) = ?

A) 8 B) 12 C) 16 D) 18 E) 24

79.



ABCD paralelkenar *(parallelogram)*

[AE] ⊥ [DB]

[CF] ⊥ [DB]

|BF| = 12 br

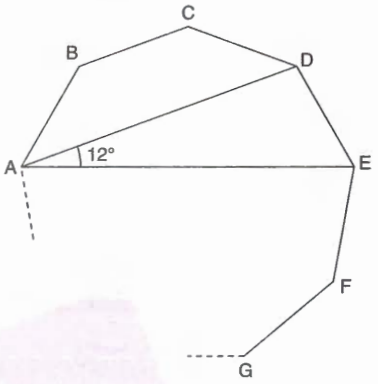
|EF| = 2 br

|AE| = 5 br

⇒ A(ABCD) = ?

A) 65 B) 75 C) 115 D) 130 E) 145

80.



ABCDEFG... Düzgün çokgen *(Regular Polygon)*

$m(\widehat{DAE}) = 12°$

⇒ Düzgün çokgen kaç kenarlıdır?

How many edges does a regular polygan have?

A) 12 B) 15 C) 18 D) 24 E) 36

DENEME SINAVI 20 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
D	C	B	C	E	D	A	C	A	C	D	C	B	D	B	C	C	B	D	B

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	D	E	D	C	A	A	D	A	A	D	B	D	D	A	B	D	D	B	E

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	B	E	C	E	B	E	D	E	C	E	E	B	A	C	C	B	E	A	A

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
E	B	B	A	A	A	B	D	A	B	D	A	D	B	E	B	C	C	D	B

DENEME SINAVI 21
TRIAL EXAM 21

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1.
64756
34156
64956
34056
84756

⇒ 64756 = ?

A) KURAK B) KULAK C) ŞULAK
D) BUDAK E) BUNAK

2.
MAHMUT
MAZLUM
LEZZET
ZAHMET
MESAFE

⇒ MAZLUM = ?

A) 036410 B) 632057 C) 032017
D) 058395 E) 456657

3.
$$\begin{array}{r} AB \\ \times\ B \\ \hline C6 \end{array} \qquad \begin{array}{r} AD \\ \times\ D \\ \hline E6 \end{array}$$

⇒ A + B + C + D + E = ?

Yukarıdaki çarpma işlemlerine göre, toplama işleminin sonucu kaçtır?

Given the divison operations above, what is the result of the addition operation?

A) 20 B) 22 C) 23 D) 24 E) 25

4.
$$\begin{array}{r} AB \\ \times\ BB \\ \hline \cdot\ \cdot \\ \cdot\ \cdot\ \cdot \\ +\ \cdot\ \cdot\ \cdot \\ \hline 4235 \end{array}$$

⇒ A + B = ?

Yukarıdaki çarpma işlemine göre, toplama işleminin sonucu kaçtır?

Given the multiplication operation above, what is the result of the addition operation?

A) 6 B) 8 C) 10 D) 12 E) 14

5.
$$\begin{array}{r} ABC \\ BC \\ +\ \ C \\ \hline 524 \end{array}$$

⇒ A + B + C = ?

Yukarıdaki birinci toplama işlemine göre, ikinci toplama işleminin sonucu kaçtır?

Given the *first addition operation above, what is the result of the second addition operation?*

A) 15 B) 16 C) 17 D) 18 E) 19

6. I. a^2 ■ 3b = a · b

II. a ▲ b = $(a - b)^2$

III. a ● b = a + b

IV. (4 ■ 9) ● (7 ▲ 5) = ?

Yukarıdaki eşitlikler ■, ● ve ▲ işaretinin görevlerini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the functions of ■, ● and ▲ are unchanged. What is the solution to the last equation?

A) 6 B) 7 C) 8 D) 9 E) 10

7. I. $2 \star 3 \rightarrow 11$

II. $3 \star 2 \rightarrow 7$

III. $4 \star 1 \rightarrow 5$

IV. $2 \star 2 \rightarrow ?$

Yukarıdaki eşitlikler ★ işaretinin görevini belirlemektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ★ is unchanged. What is the solution to the last equation?

A) 2 B) 4 C) 6 D) 8 E) 10

8. I. $4 \bullet 1 = 15$

II. $3 \bullet 2 = 5$

III. $5 \bullet 4 = 9$

IV. $6 \bullet 4 = ?$

Yukarıdaki eşitlikler ● işaretinin görevini belirlemektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ● is unchanged. What is the solution to the last equation?

A) 12 B) 16 C) 18 D) 20 E) 24

9.

+	a	b	c
a			2a + b
b	17		35

$\Rightarrow b = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre b kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of b?

A) 18 B) 20 C) 21 D) 23 E) 25

10.

+	a	b	c
a			21
b			
c			

x	a	b	c
a		32	
b			10
c			

Yukarıdaki toplama ve çarpma tablolarında a, b ve c belli birer sayının yerine kullanılmıştır.

In the summation and multiplication tables above, a, b and c each stand for a specific number.

$\Rightarrow a - (b \cdot c) = ?$

A) 6 B) 8 C) 12 D) 16 E) 24

11.

+	a	b	c
a			
b	18	4a	
c			3b

$\Rightarrow c = ?$

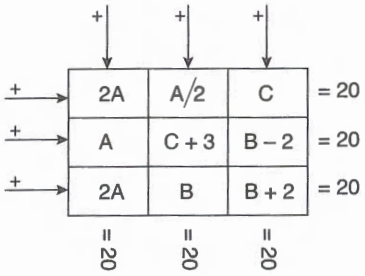
Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre c kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of c?

A) 6 B) 12 C) 18 D) 24 E) 30

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12.



2A	A/2	C	= 20
A	C + 3	B – 2	= 20
2A	B	B + 2	= 20
= 20	= 20	= 20	

⇒ A = ? ⇒ B = ? ⇒ C = ?

Yukarıdaki tabloda her satır ve sütun toplam 20 olduğuna göre A, B ve C hangi sayıları göstermektedir.

Summation of each row and columns in the table above is 20. Which numbers do A, B and C sdand for?

	A	B	C
A)	4	5	10
B)	4	3	12
C)	4	7	10
D)	5	3	12
E)	5	5	10

13.

♦	γ	β	α
γ	β	α	γ
β	α	γ	β
α	γ	β	α

△	x	y	z	t
x	z	t	x	y
y	t	x	y	z
z	x	y	z	t
t	y	z	t	x

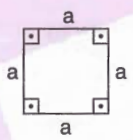
(a, b) ♦ (m, n) = (a ♦ m, b △ n)

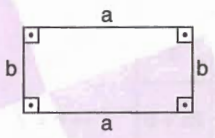
⇒ (α, x) ♦ (β, z) = ?

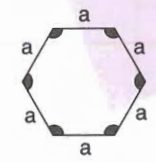
A) (γ, x) B) (β, y) C) (β, x)

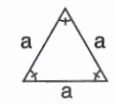
D) (α, y) E) (α,x)

14.

I.  → 4, 4, 1, 1

II.  → 4, 4, 2, 1

III.  → 6, 6, 1, 1

IV.  → ?, ?, ?, ?

A) 3, 3, 3, 3 B) 3, 3, 2, 1 C) 3, 3, 1, 1

D) 3, 3, 2, 3 E) 3, 3, 2, 2

15.

I. 

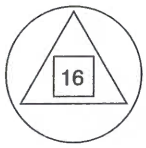
$\longrightarrow a^2$

II. 

$\longrightarrow$ 2a

III. 

$\longrightarrow \frac{d}{2}$

IV. 

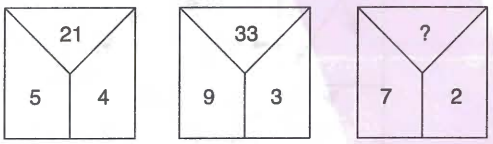
$\longrightarrow$ 8

V. 

$\longrightarrow$?

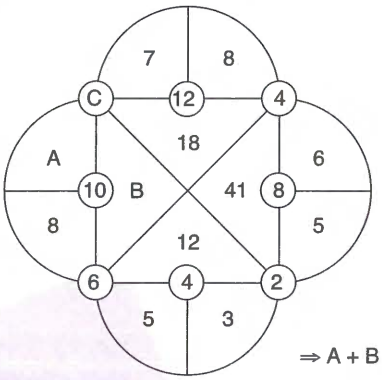
A) 1 B) 2 C) 3 D) 4 E) 5

16.



A) 23 B) 19 C) 17 D) 11 E) 8

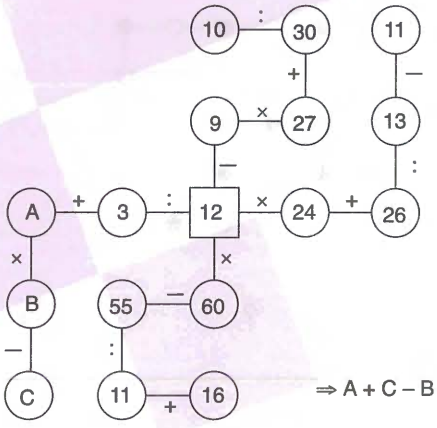
17.



$\Rightarrow A + B + C = ?$

A) 22 B) 24 C) 26 D) 28 E) 30

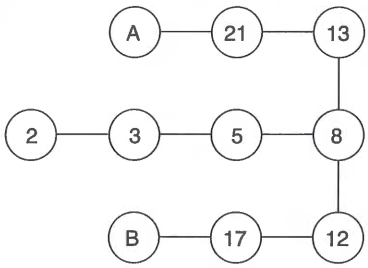
18.



$\Rightarrow A + C - B = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

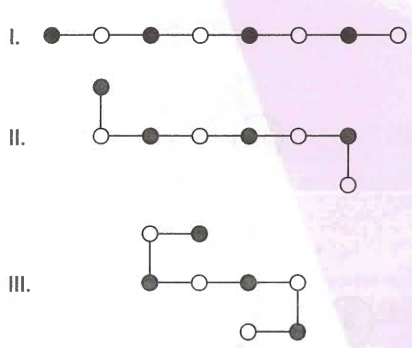
19.



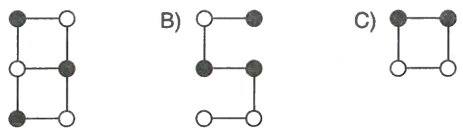
$\Rightarrow A - B = ?$

A) 11 B) 14 C) 17 D) 19 E) 21

20.



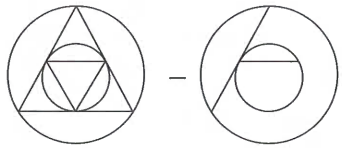
A) B) C)



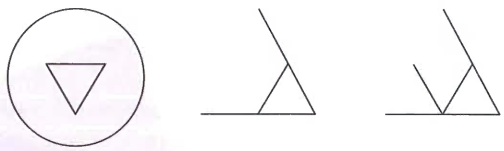
D) E)



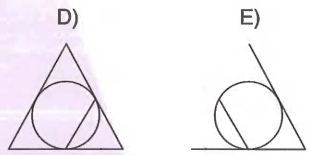
21.



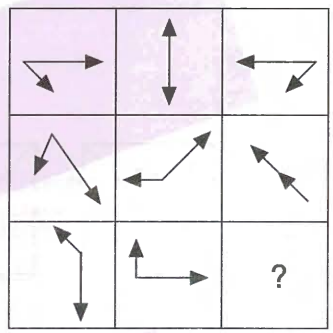
A) B) C)



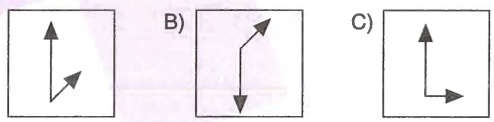
D) E)



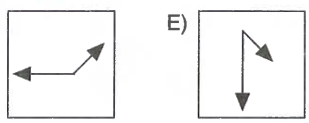
22.



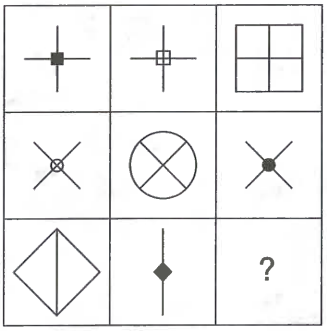
A) B) C)

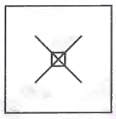
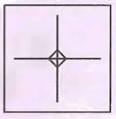


D) E)

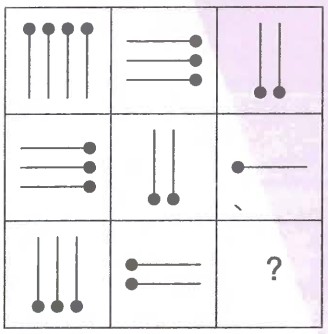


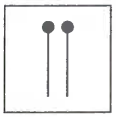
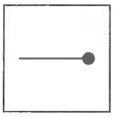
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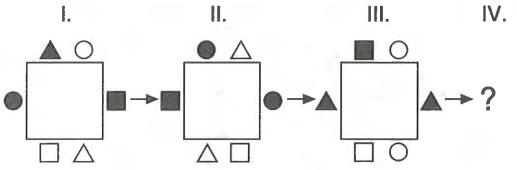
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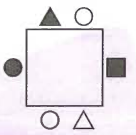
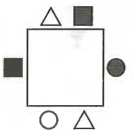
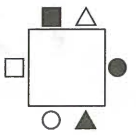
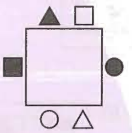
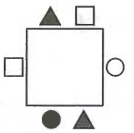
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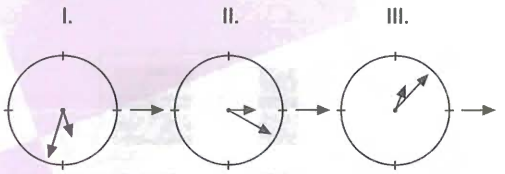
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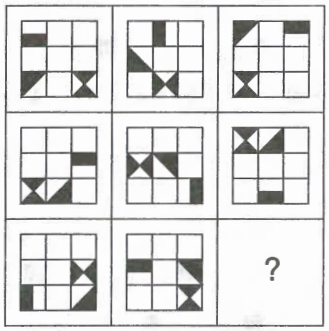
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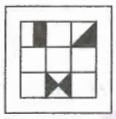
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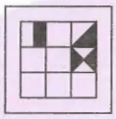
A) 11:02 B) 10:01 C) 11:04
D) 10:52 E) 10:56

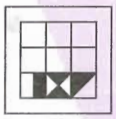
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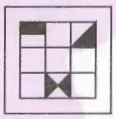


A) 

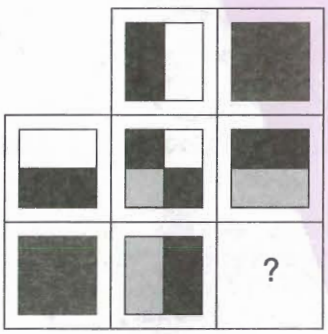
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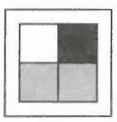
E) 

28.



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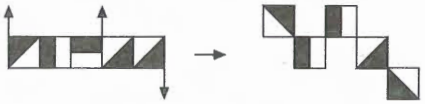
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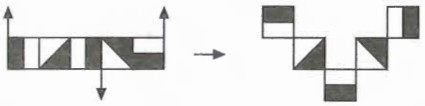
C) 

D) 

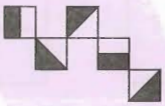
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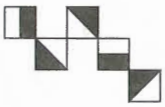
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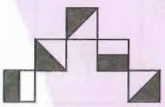
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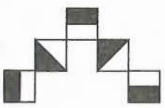
II. 

III. 

A) 

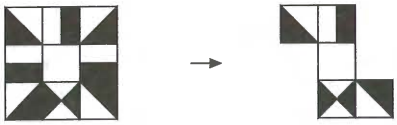
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C) 

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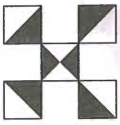
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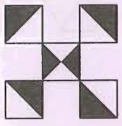
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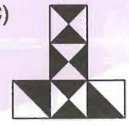
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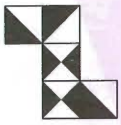
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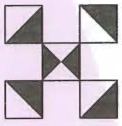
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A) 

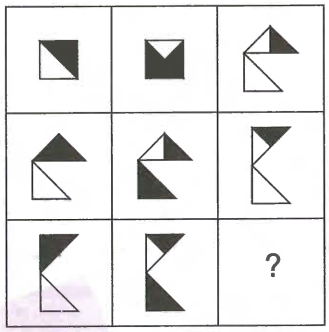
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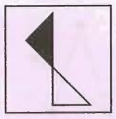
C) 

D) 

E) 

31.



A) 

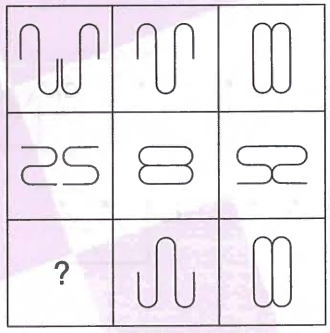
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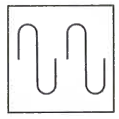
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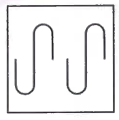
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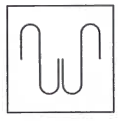
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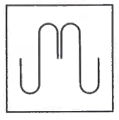
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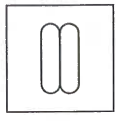


A) 

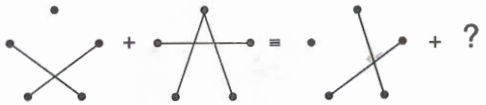
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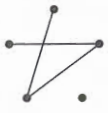
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D) 

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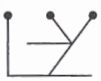
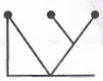


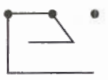
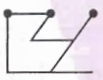
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B) 
C) 

D) 
E) 

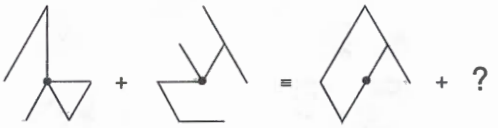
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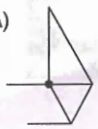
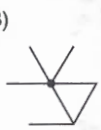
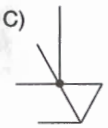


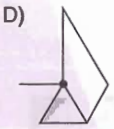
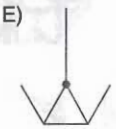
A) 
B) 
C) 

D) 
E) 

35.



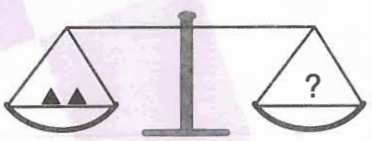
A) 
B) 
C) 

D) 
E) 

36.

I. 

II. 

III. 

I ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ●●● B) ■ C) ●■

D) ●● E) ■■

37.

I. 

II. 

III. 

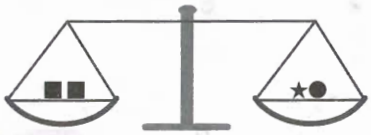
I ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

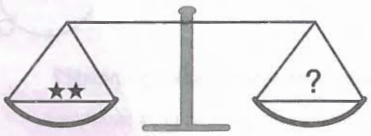
In accordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ■●★ B) ●●■ C) ●★★
D) ★★★● E) ★★■●

38.

I. 

II. 

III. 

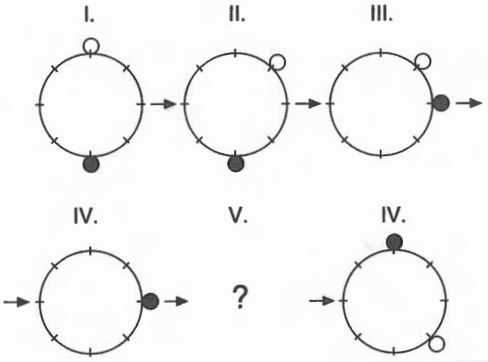
I ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ■■ B) ■■● C) ●●★■
D) ■★ E) ●●★

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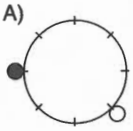
39.



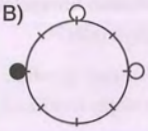
Soru işareti yerine hangi şekil gelmelidir?

Which figure does the question mark stand for ?

A)



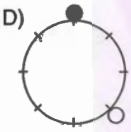
B)



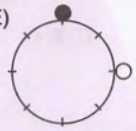
C)



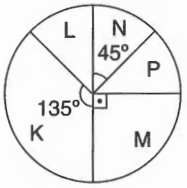
D)

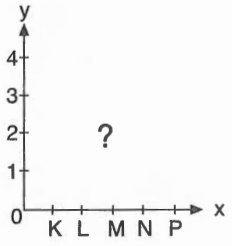


E)

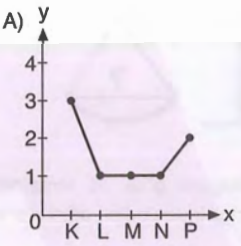


40.

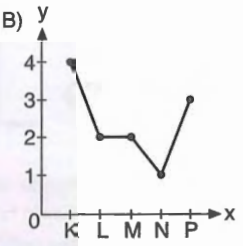




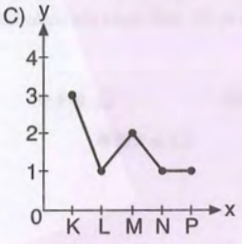
A)



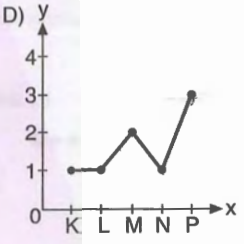
B)



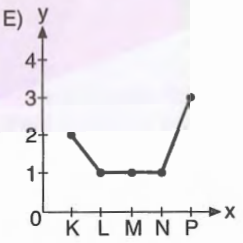
C)



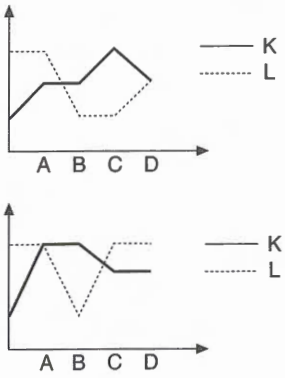
D)



E)



41.

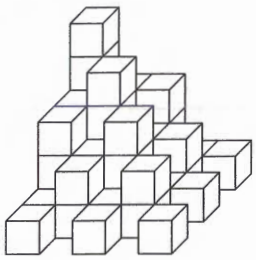


A: L > K
B: K > L
C: K > L
D: K = L

⇒ A = ? ⇒ B = ? ⇒ C = ? ⇒ D = ?

	A	B	C	D
A)	K = L	K < L	K < L	K < L
B)	K < L	K > L	K > L	K < L
C)	K = L	K < L	K < L	K > L
D)	K < L	K > L	K < L	K > L
E)	K = L	K > L	K < L	K < L

42.

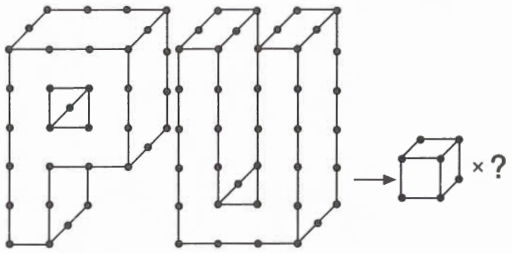


Şekilde kaç küp vardır?

How many cubes are there in given shape above?

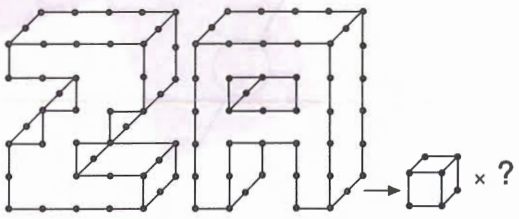
A) 37 B) 39 C) 41 D) 43 E) 45

43.



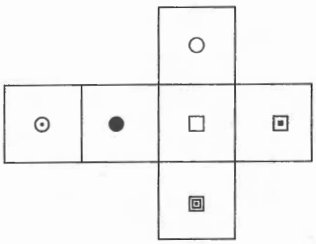
A) 39 B) 40 C) 41 D) 42 E) 43

44.



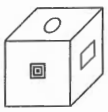
A) 54 B) 55 C) 56 D) 57 E) 58

45.



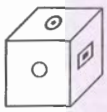
Aşağıdakilerden hangisi yukarıdaki şeklin kapalı halidir?

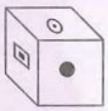
Which of the following items shows the closed shape of the given six squares above?

A) 

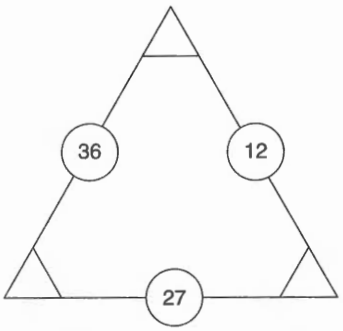
B) 

C) 

D) 

E) 

46.

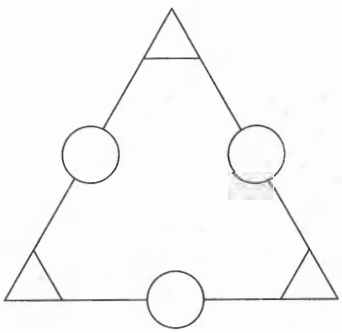


Üçgenlerin içindeki sayıların toplamı kaçtır?

What is the sum of the numbers inside of the triangles?

A) 14 B) 16 C) 18 D) 20 E) 22

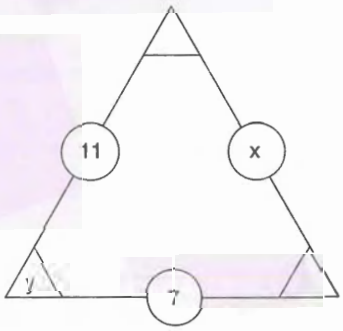
46 – 49 soruları aşağıdaki bilgilere göre cevaplayınız.
***Answer the questions** 46 – 49 according to the information below.*



Her bir çemberin içindeki sayı, kendisine komşu olan iki üçgenin içindeki sayıların çarpımına eşittir?

The number inside of each circle equals the multiplication of the numbers inside of the two triangles next to it.

47.

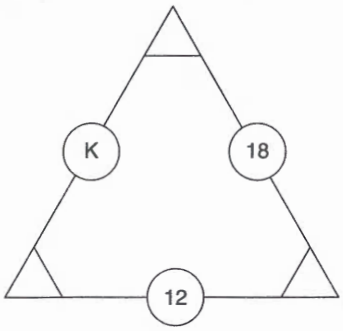


Üçgenlerin şekle göre x + y toplamı kaçtır?

According to the figure above, what is x + y?

A) 17 B) 18 C) 77 D) 78 E) 88

48.

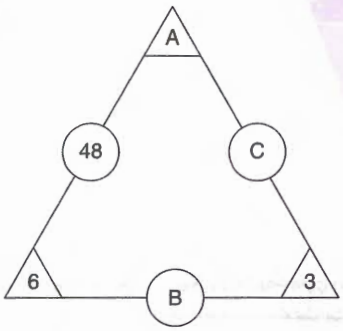


Yukarıdaki şekle göre K hangisi olamaz?

According to the figure above, which value that "K" cannot have?

A) 216 B) 54 C) 24 D) 8 E) 6

49.



Yukarıdaki şekle göre $\frac{A \cdot B}{C} = ?$

According to the figure above, what is $\frac{A \cdot B}{C} = ?$

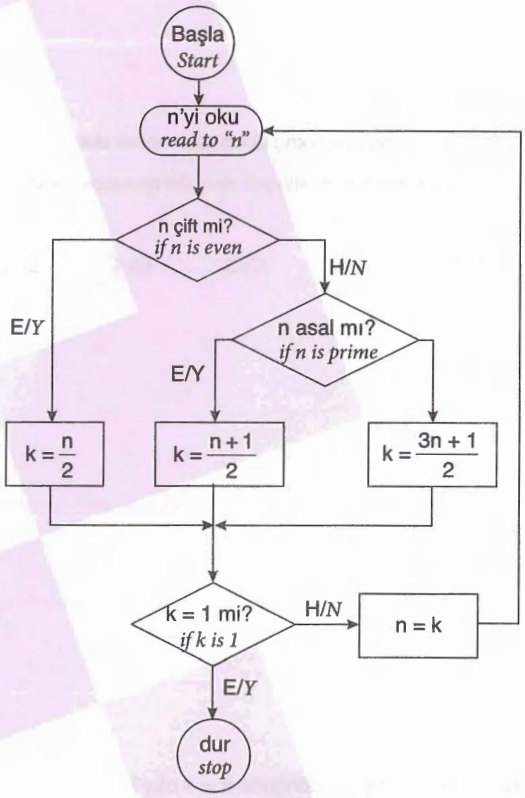
A) $\frac{1}{6}$ B) $\frac{1}{2}$ C) 2 D) 4 E) 6

50 – 52 soruları aşağıdaki bilgilere göre cevaplayınız.

Answer the questions 50 – 52 according to the information below.

Aşağıda, bilgisayar programının akış şeması verilmiştir. Bu programa 1'den büyük tam sayılar girilmekte ve program eşkenar dörtgen şeklinde kutucuklar içindeki sorulara verilecek Evet (E) veya Hayır (H) cevaplarına göre ok yönünde ilerleyip istenilen işlemleri yapmaktadır.

A flowchart of a computer software is given below. Integers with are bigger than 1 are entered info the software and the software does required calculations by moving in the direction of the arrow according to the Yes (Y) / No (N) answers given to the questions inside the boxes shaped like rhombus.



E / *Y*	(Evet – *Yes*)
H / *N*	(Hayır – *No*)

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50. n = 23 ise k aşağıdakilerden hangisi olamaz?

If n is 23 which value that "k" cannot have?

A) 12 B) 8 C) 6 D) 3 E) 2

51. n = 23 ise bu işlem kaç döngüden sonra durur?

If n is 23 after how many cycle does this operation stops?

A) 1 B) 2 C) 3 D) 4 E) 5

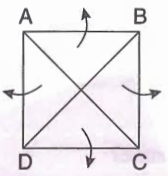
52. n = 18 ise kaçıncı döngüde k = 4 olur?

If n is 18, at which cycle does k equal 4?

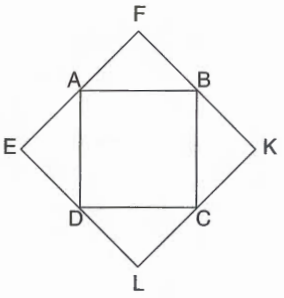
A) 5 B) 4 C) 3 D) 2 E) 1

53 – 55 soruları aşağıdaki bilgilere göre cevaplayınız.

Answer the questions 53 – 55 according to the information below.



Şekil I
Figure I



Şekil II
Figure II

I. şekildeki zarfın açılımı, II. şekilde verilmiştir.

The unfolded form of the envelope in the figure I is given in the figure II.

53. I. şekildeki zarfın alanı 64 br^2 ise II. şekildeki açılmış halinin alanı kaç br^2 dir?

If the area of the envelope is 64 square units, how many square units of the area of the unfolded envelope in the figure II?

A) 80 B) 96 C) 128 D) 142 E) 160

54. I. şekildeki zarfın çevresi 16 br ise II. şekildeki açılmış halinin çevresi kaç br dir?

If the circumference of the envelope in the figure I is 16 units, how many units of circumference of the unfolded one in the figure II?

A) 20 B) $16\sqrt{2}$ C) $20\sqrt{2}$ D) 32 E) $32\sqrt{2}$

55. I. şekildeki zarfın bir kenarı $|AB| = 6$ br ise II. şekildeki A(DCL) = ?

If one edge of ($|AB| = 6$) the envelope in the figure I is 6 units, what is A(DCL) in the figure II?

A) 9 B) 12 C) 18 D) 24 E) 36

56. $2,27\overline{9} + 3,71\overline{9} = ?$

A) 5,9 B) 5,99 C) 6 D) 6,1 E) 6,9

57. $\dfrac{3^{(2^3)}}{(3^2)^3} = ?$

A) $\frac{1}{3}$ B) 1 C) 3 D) 9 E) 27

58. $\dfrac{x+1}{3} - \dfrac{x+2}{5} = 7$

$\Rightarrow x = ?$

A) 55 B) 53 C) 51 D) 49 E) 48

59. $\dfrac{a}{b} = \dfrac{c}{d} = \dfrac{e}{f} = 3$

$\left(\dfrac{a+b}{b}\right)\cdot\left(\dfrac{c-d}{c}\right)\cdot\left(\dfrac{2e+f}{e}\right) = ?$

A) $\frac{28}{9}$ B) 6 C) $\frac{49}{9}$ D) $\frac{56}{9}$ E) $\frac{56}{3}$

60. $\sqrt[3]{-24-\sqrt{7+\sqrt[3]{6+\sqrt{4}}}} = ?$

A) -3 B) -2 C) -1 D) 0 E) 1

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61. $\left[\frac{2}{13}+\frac{5}{11}-\frac{4}{7}\right]-\left[\frac{3}{7}-\frac{6}{11}-\frac{24}{13}\right]=?$

A) 2 B) 1 C) $\frac{1}{2}$ D) $\frac{1}{3}$ E) -3

62. $A=(2+1)\cdot(2^2+1)\cdot(2^4+1)\cdot(2^8+1)$

$\Rightarrow \frac{A+1}{2}=?$

A) 2^{12} B) 2^{13} C) 2^{14} D) 2^{15} E) 2^{16}

63. $a, b, c \in R^+$

$a\cdot b=30$

$b\cdot c=12$

$a\cdot c=20$

$\Rightarrow a=?$

A) 10 B) $2\sqrt{5}$ C) $3\sqrt{2}$

D) 5 E) $5\sqrt{2}$

64. $\sqrt{\frac{8}{3^{1-x}}+3^{x-1}}=27$

$\Rightarrow x=?$

A) 2 B) 3 C) 5 D) 7 E) 8

65. $a\neq b$

$a^2+\frac{5}{a}=b^2+\frac{5}{b}$

$\Rightarrow a^2\cdot b+b^2\cdot a=?$

A) -5 B) -1 C) 0 D) 1 E) 5

66. $a=\frac{2b+1}{3b-5}$

$\Rightarrow b=?$

A) $\frac{-5a-1}{3a-2}$ B) $\frac{-5a+1}{3a-2}$ C) $\frac{5a-1}{3a+2}$

D) $\frac{5a+1}{3a-2}$ E) $\frac{5a+1}{3a+2}$

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67. $x + y - z = 4$

$xy - xz - yz = 5$

$\Rightarrow x^2 + y^2 + z^2 = ?$

A) 4 B) 5 C) 6 D) 9 E) 11

68. $6 \cdot |x - 2| = |x^2 - 5x + 6|$

$\Rightarrow \sum x = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

69. $3x^2 + 14x + 12 = 0$

S. S. $= \{x_1, x_2\}$

$\Rightarrow \frac{x_1}{x_2} + \frac{x_2}{x_1} = ?$

A) $\frac{31}{9}$ B) $\frac{10}{3}$ C) $\frac{29}{9}$ D) 3 E) $\frac{8}{3}$

70. $\log_{\sqrt{9}} \sqrt[3]{9} = ?$

A) 1 B) 2 C) 3 D) 4 E) 6

71. $\ln\left(\prod_{k=1}^{15} e^k\right) = ?$

A) 70 B) 90 C) 100 D) 120 E) 140

72. $0 < x < \frac{\pi}{2}$

$\cos x + 2 \cdot \cos(2x) = 1$

$\Rightarrow \tan x = ?$

A) -1 B) 0 C) 1 D) $\frac{\sqrt{5}}{3}$ E) $\frac{\sqrt{7}}{3}$

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73. $i^2 = -1$

$z = \dfrac{24+7i}{12i-9}$

$\Rightarrow |z| = ?$

A) $\dfrac{3}{5}$ B) $\dfrac{5}{3}$ C) $\dfrac{7}{3}$ D) $\dfrac{9}{2}$ E) $\dfrac{11}{3}$

74. $(fog)(x) = \dfrac{x-1}{x}$

$f(x) = x + 1$

$\Rightarrow g(x) = ?$

A) $-\dfrac{7}{x}$ B) $-\dfrac{1}{x}$ C) $\dfrac{x+1}{x}$ D) $\dfrac{1-x}{x}$ E) x

75. $x \bullet y = x + y - y \cdot x + 5$

$\Rightarrow 3 \bullet 2 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

76. $\lim\limits_{x \to 3}\left(\dfrac{\sin(2x-6)\cdot\tan(3x-9)}{x^2-6x+9}\right) = ?$

A) -3 B) 0 C) 1 D) 3 E) 6

77. $\lim\limits_{x \to \infty}\left(\dfrac{[\![x]\!]}{x}\right) = ?$

A) $-\infty$ B) -1 C) 0 D) 1 E) ∞

78. $f(x) = \cos^2 x$

$\Rightarrow f'\left(\dfrac{\pi}{12}\right) = ?$

A) $-\dfrac{\sqrt{3}}{2}$ B) $-\dfrac{1}{2}$ C) $\dfrac{1}{2}$ D) $\dfrac{\sqrt{3}}{2}$ E) 1

79. $\left.\begin{matrix} x = 2t + 1 \\ y = 3t^2 + t^3 \end{matrix}\right\} \Rightarrow \left.\frac{dy}{dx}\right|_{x=3} = ?$

A) $\frac{45}{2}$ B) 15 C) $\frac{9}{2}$ D) $\frac{3}{2}$ E) $\frac{1}{2}$

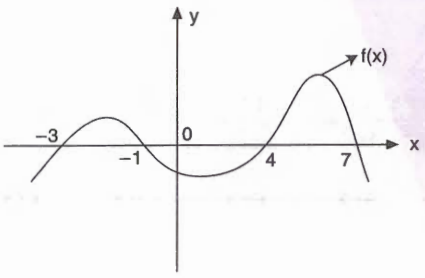
80. $f'(x) = 3x^2 + 1$

$f(0) = 5$

$\Rightarrow f(1) = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

81.



$\Rightarrow \int_{-3}^{7} (\text{sgn}(f(x)))\,dx = ?$

A) −10 B) −5 C) 0 D) 5 E) 10

82. $\int_{0}^{4\pi} |[\![\cos x]\!]|\,dx = ?$

A) $\frac{\pi}{2}$ B) π C) $\frac{3\pi}{2}$ D) 2π E) 5π

83. $f(x) = \left(\int_{x}^{x^2} \frac{1}{x}\,dx \right)$

$\Rightarrow f'(x) = ?$

A) $\frac{1}{x}$ B) $\frac{2}{x}$ C) $\frac{1}{x^2}$ D) $\frac{2}{x^2}$ E) $\frac{3}{x}$

84. $A = \begin{bmatrix} 2 & 4 & 60 \\ 3 & 5 & 80 \\ 6 & 1 & 70 \end{bmatrix}$

$\Rightarrow |A| = ?$

A) 50 B) 10 C) 5 D) 0 E) −1

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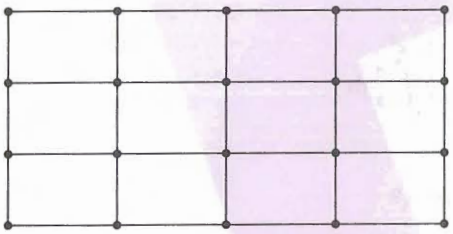
85. $A = \begin{bmatrix} 1 & 2 & 0 \\ -1 & 0 & 3 \end{bmatrix}_{2x3}$ $B = \begin{bmatrix} 1 \\ 3 \\ -2 \end{bmatrix}_{3x1}$

$\Rightarrow A \cdot B = ?$

A) $\begin{bmatrix} 7 \\ -7 \end{bmatrix}$ B) $[7 \quad -7]$ C) $[-7 \quad 7]$

D) $\begin{bmatrix} -7 \\ 7 \end{bmatrix}$ E) $\begin{bmatrix} 0 \\ 0 \end{bmatrix}$

86.



Şekilde kaç farklı dikdörtgen vardır?

How many different rectangles are there in the figure?

A) 20 B) 30 C) 60 D) 64 E) 80

87. Bir kitaplıkta 5 farklı geometri, 6 farklı matematik ve 4 farklı fizik kitabı; fizik kitapları yan yana olmak koşuluyla kaç farklı şekilde dizilebilir?

In how many different ways can 5 different geometry, 6 different maths and 4 different Physics books be put on a bookshelf in such way that physics books must stay next to each other?

A) 12! B) 4! · 12! C) 11!

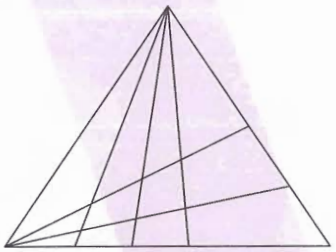
D) 12·4! E) 11! · 4!

88. 5008822255 sayısının rakamları ile 10 basamaklı kaç farklı sayı yazılabilir?

How many different ten – digit numbers can be written by using the digits of 5008822255?

A) 2240 B) 2400 C) 2480 D) 2520 E) 2620

89.



Şekilde kaç farklı üçgen vardır?

How many different triangles are there in the figure?

A) 36 B) 42 C) 44 D) 52 E) 60

90. $\frac{17}{18} + \frac{17}{18^2} + \frac{17}{18^3} + \cdots\cdots + \frac{17}{18^n} + \cdots\cdots = ?$

A) 1 B) 2 C) 3 D) 4 E) 17

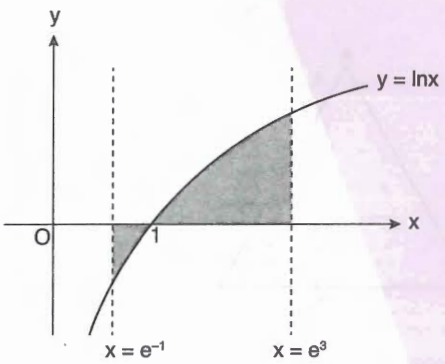
91. a_n aritmetik dizi *(arithmetic sequence)*

$a_n = n^2 - 4n^3$

$\Rightarrow d = ?$

A) -31 B) -28 C) -25 D) -14 E) -3

92.



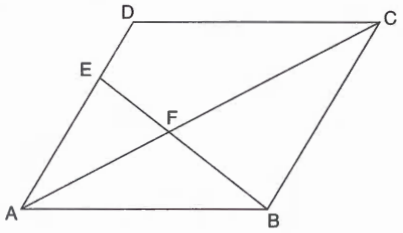
$\Rightarrow$ Taralı alan *(shaded area)* = ?

A) $2e^3 - 2e^{-1} + 2$ B) $2e^{-1} + 2$

C) $2e^3 + 2e^{-1} + 2$ D) $2e^3 - 2e^{-1} - 2$

E) $2e^{-1} + 3e^3$

93.



$|AB| = |BC| = |CD| = |DA|$

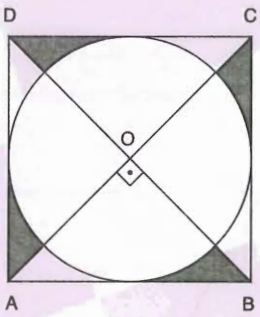
$|AB| = 12$ br

$|DE| = 3$ br

$\Rightarrow \dfrac{|BF|}{|BE|} = ?$

A) $\frac{2}{9}$ B) $\frac{3}{8}$ C) $\frac{1}{2}$ D) $\frac{3}{7}$ E) $\frac{4}{7}$

94.



ABCD kare *(square)*

A(ABCD) = 16 br^2

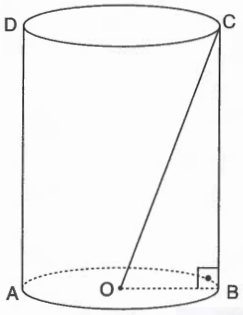
Taralı alanlar toplamı kaç br^2 dir?

(What is the sum of the shaded area of the given figure above)

A) $9 - 2\pi$ B) $3\pi - 8$ C) $4\pi - 8$

D) $8 - 2\pi$ E) 4π

95.



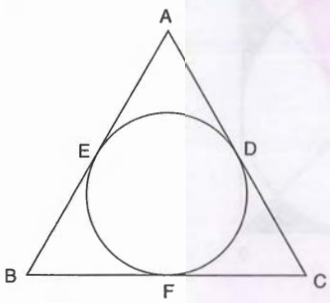
$V_{silindir(cylinder)} = 128\pi$ br^3

Yanal alan *(lateral area)* $= 64\pi$ br^2

$\Rightarrow |OC| = ?$

A) 8 B) $6\sqrt{2}$ C) $4\sqrt{5}$ D) 9 E) 10

96.



$|AE| = 4$ br

$|BF| = 6$ br

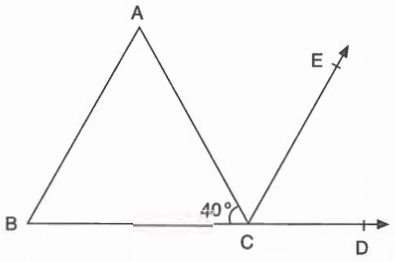
$|FC| = 8$ br

$\Rightarrow A(ABC) = ?$

A) $12\sqrt{6}$ B) $18\sqrt{6}$ C) $24\sqrt{6}$

D) $36\sqrt{6}$ E) $42\sqrt{6}$

97.



$|AC| = |BC|$

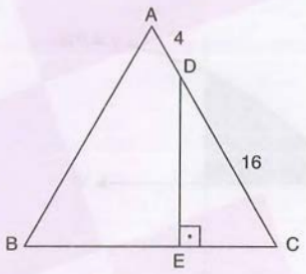
$[AB] \,//\, [CE$

$m(\widehat{BCA}) = 40°$

$\Rightarrow m(\widehat{DCE}) = ?$

A) 55 B) 60 C) 65 D) 70 E) 75

98.



ABC eşkenar üçgen

ABC equilateral triangle

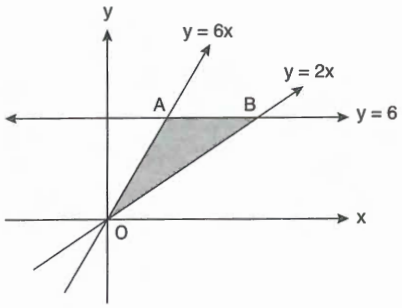
$|DC| = 16$ br

$|AD| = 4$ br

$\Rightarrow \overrightarrow{DE} \cdot \overrightarrow{AB} = ?$

A) 120 B) 240 C) 0 D) – 120 E) – 240

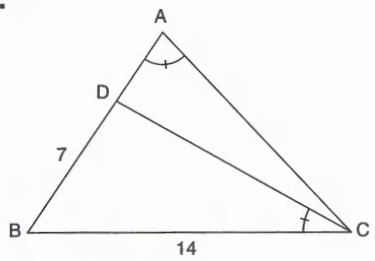
99.



⇒ A(AOB) = ?

A) 2 B) 4 C) 6 D) 8 E) 10

100.



$m(\widehat{BAC}) = m(\widehat{DCB})$

$|BD| = 7$ br

$|BC| = 14$ br

$\Rightarrow \frac{A(ADC)}{A(BDC)} = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 2 D) 3 E) 4

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DENEME SINAVI 21 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	A	E	D	C	E	C	D	A	A	C	A	C	C	A	B	C	C	A	A

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
C	C	B	D	D	E	A	B	C	A	C	D	B	A	C	B	D	A	E	C

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
E	D	D	C	D	B	D	D	E	B	E	B	C	B	A	C	D	B	D	A

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
A	D	E	C	E	D	C	C	A	B	D	E	B	B	A	E	D	B	C	E

81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
C	D	A	D	A	C	B	D	B	A	C	C	E	D	C	C	D	B	C	D

DENEME SINAVI 22
TRIAL EXAM 22

1. 100 , 100 , 150 , 300 , 750 , ?

A) 1500 B) 1750 C) 2000 D) 2250 E) 2500

2.

43	27	89	54	36	66
81	45	167	102	64	?

A) 33 B) 83 C) 104 D) 124 E) 128

3.

5	10	15	30	35	?
7	7	?	27	37	67
12	17	32	57	72	?

A) 70,19,137 B) 40,15,107 C) 40,13,107
D) 70,19,103 E) 70,17,137

4. I. 3 ■ 2 = 5
II. 7 ■ 1 = 48
III. 5 ■ 4 = 9
IV. 8 ■ 6 = ?

A) 100 B) 48 C) 56 D) 120 E) 28

5. I. 93 ◆ 84 = 24
II. 21 ◆ 63 = 3
III. 42 ◆ 51 = 8
IV. 82 ◆ 43 = ?

A) 6 B) 8 C) 42 D) 21 E) 16

6. I. ● 29 = 43
II. ● 34 = 92
III. ● 49 = 163
IV. ● 54 = ?

A) 20 B) 40 C) 94 D) 159 E) 252

7. I. (5 ● 2) ■ 2 = 9
II. (6 ● 2) ■ 3 = 64
III. (10 ● 5) ■ 2 = 25
IV. (7 ● 4) ■ 4 = ?

A) 625 B) 16 C) 125 D)64 E) 81

8. I. a ■ 4 = 2a + 16
II. 4 ■ 9 = 93
III. 7 ■ 1 = ?

A) 8 B) 21 C) 24 D) 64 E) 102

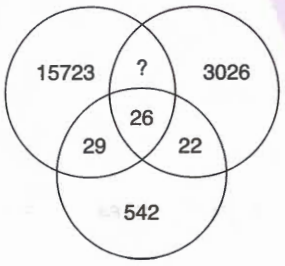
9. I. $3a \blacksquare 2b = a^2 \bullet b^2$

II. $a \bullet b = \dfrac{4a^2+4b^2}{(a-b)^2+2ab}$

III. $9 \blacksquare 16 = ?$

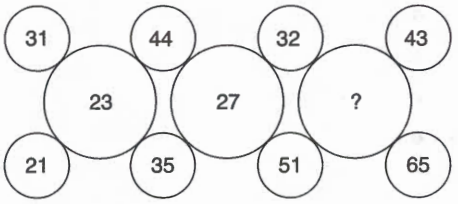
A) 1 B) 4 C) $\frac{12}{5}$ D) 8 E) 17

10.



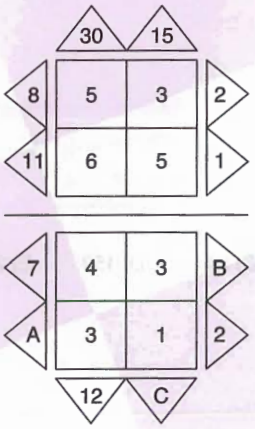
A) 20 B) 19 C) 15 D) 23 E) 29

11.



A) 29 B) 13 C) 17 D) 25 E) 26

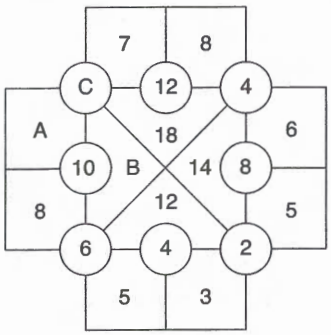
12.



$\Rightarrow \dfrac{C}{A \cdot B} = ?$

A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{3}{2}$ D) $\frac{3}{4}$ E) $\frac{5}{3}$

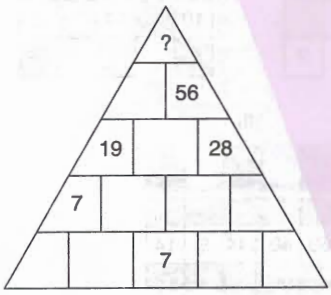
13.



$\Rightarrow \frac{B \cdot C}{A} = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

14.

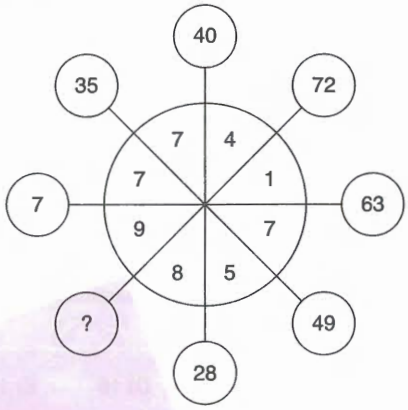


Yukarıdaki piramitteki her sayı altındaki iki sayının toplamına eşittir. Buna göre soru işaretinin yerine gelecek sayı aşağıdakilerden hangisidir?

Each number in the pyramid is the sum of the two numbers immediately below it. Which of the following number is stand for at the question mark?

A) 78 B) 86 C) 94 D) 103 E) 112

15.



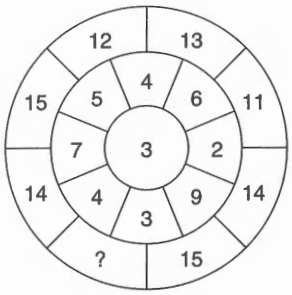
A) 4 B) 17 C) 25 D) 34 E) 42

16.



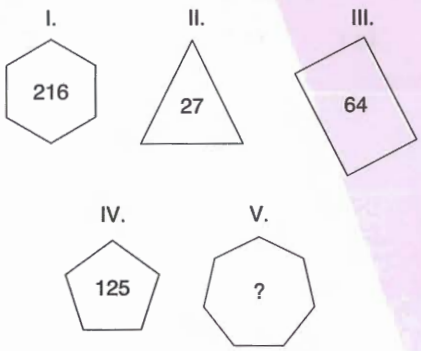
A) 0 B) 1 C) 3 D) 6 E) 7

17.



A) 7 B) 10 C) 13 D) 16 E) 19

18.



A) 1 B) 8 C) 81 D) 343 E) 512

19.

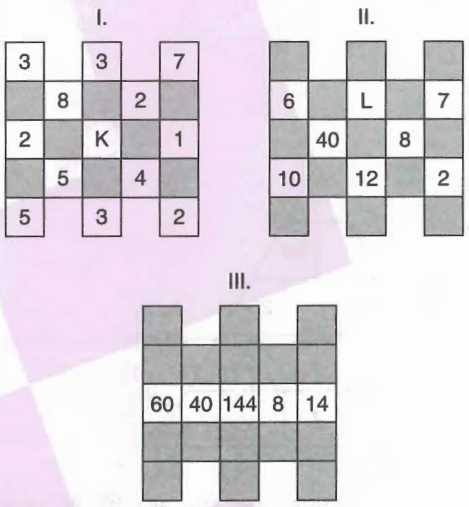
I. 7896432 → 9872346

II. 9247183 → 4293817

III. 8629471 → ?

A) 8264179 B) 2681794 C) 6821794 D) 2681749 E) 28697194

20.



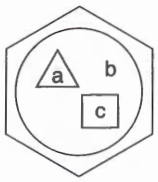
K = ? L = ?

Yukarıdaki şekil dizisinde K ve L nin yerine hangi sayılar gelmelidir?

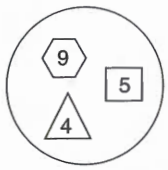
Which numbers do K and L stand for in the figure sequence above?

	K	L
A)	8	12
B)	4	12
C)	4	16
D)	6	14
E)	12	18

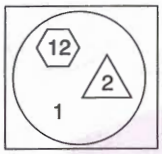
21.

I. 

$= \frac{4a + b + c^2}{4}$

II. 

$= 11$

III. 

$= ?$

A) 169 B) 64 C) 78 D) 121 E) 144

22.

+	a	b	c
a		c + 6	
b			
c	b + 2		

$\Rightarrow a = ?$

A) 3 B) 4 C) 6 D) 8 E) 9

23.

+	a	b	c
a		5a	
b		6a + 10	
c			

$\Rightarrow b - a = ?$

A) 8 B) 12 C) 15 D) 20 E) 25

24.

+	a	b	c
a	b	c	d
b	c	d	e
c	d	e	f

$\Rightarrow \frac{d}{f - e} = ?$

A) 1 B) 2 C) 4 D) 5 E) 6

25.

+	a	b	c	d
a				8
b				
c		12		
d				

$\Rightarrow a \cdot c + d \cdot c + a \cdot b + b \cdot d = ?$

A) 4 B) 20 C) 40 D) 96 E) 108

26.

+	a	b	c
a	b		
b		c	
c			

x	a	b	c
a	c	2c	
b			
c			

$\Rightarrow a + b + c = ?$

A) 16 B) 18 C) 22 D) 24 E) 28

27.

I. 

II. 

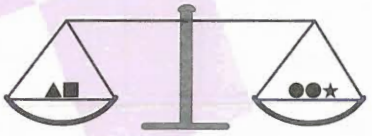
III. 

A) ▲▲ B) ▲● C) ■▲

D) ■■▲ E) ●▲■

28.

I. 

II. 

III. 

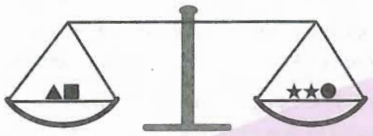
A) ■■ B) ■★ C) ▲▲▲

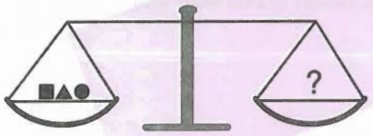
D) ■★★ E) ▲■■

29.

I. 

II. 

III. 

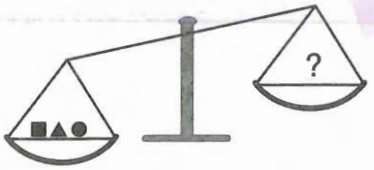
IV. 

A) ★★ B) ■■★ C) ★■
D) ■■■ E) ★★★

30.

I. 

II. 

III. 

A) ●■■ B) ▲●● C) ▲▲●
D) ●● E) ■■■■

31.

$$\begin{array}{rr} AB & \\ \times\ \ C & \\ \hline AB & \end{array} \qquad \begin{array}{rr} A & \\ -\ B & \\ \hline C & \end{array} \qquad \begin{array}{r|l} B+1 & A \\ \hline - & \\ \hline D & \end{array}$$

$\Rightarrow D = ?$

A) 0 B) 1 C) 2 D) 3 E) 4

32. $\dfrac{ABABAB}{AB} + \dfrac{BB}{B} + \dfrac{AAA}{A} = ?$

A) 10223 B) 120322 C) 10332
D) 123001 E) 123

33.

$$\begin{array}{r} AB \\ AB \\ AB \\ AB \\ +\ AB \\ \hline 28A \end{array}$$

$\Rightarrow A \cdot B = ?$

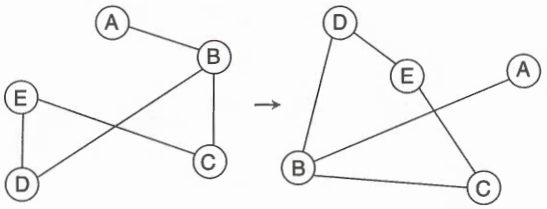
A) 35 B) 25 C) 45 D) 15 E) 55

34.

$$\begin{array}{r|l} 1A2 & B3 \\ \hline - & 8 \\ \hline C & \end{array}$$

$\Rightarrow (B \times C) - A = ?$

A) 4 B) 5 C) 7 D) 8 E) 9



Şekil I
Figure I

Şekil II
Figure II

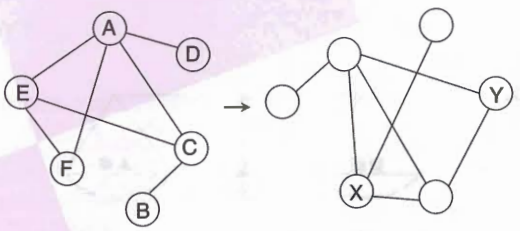
A, B, C, D ve E harfleri I. şekildeki gibi birbirine bağlanmıştır. I. şekildeki bağlantı sayıları ve birbirine bağlanan harfler değişmemek koşuluyla II. şekil elde edilmiştir.

Letters A, B, C and E are linked as in Figure I. Figure II. has been constructed so as not to change which letters are linked to which, and the number of links made with each letter, in figure I.

35 - 36. soruları yukarıdaki bilgiye göre cevaplayınız.

Answer the questions 35 - 36 according to the information above.

35.



Şekil II
Figure II

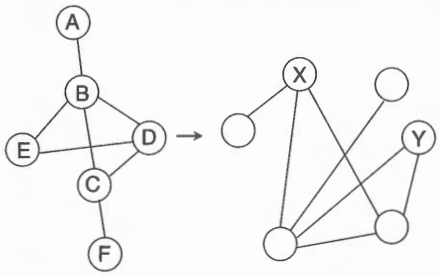
Şekil II
Figure II

II. şekilde X ve Y nin yerine gelmesi gereken harfleri bulunuz.

Find the letters that correspond to X and Y in figure II.

	X	Y
A)	D	F
B)	C	F
C)	E	C
D)	E	D
E)	A	B

36.



Şekil I
Figure I

Şekil II
Figure II

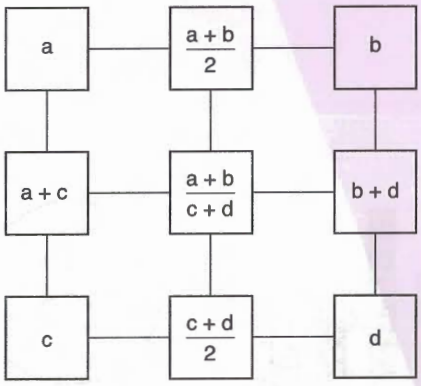
II. şekilde X ve Y nin yerine gelmesi gereken harfleri bulunuz.

Find the letters that correspond to X and Y in figure II.

	X	Y
A)	D	E
B)	D	A
C)	C	A
D)	C	E
E)	E	C

37 - 38. soruları aşağıdaki bilgiye göre cevaplayınız.

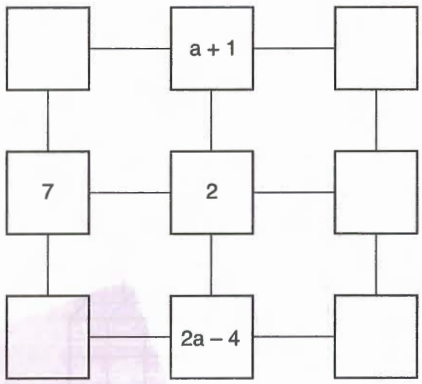
Answer the questions 37 - 38 according to the information below.



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif tamsayıyı içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir; fakat, bunlarla yapılacak işlemler her soruda aynıdır.

The figure above has been organized according to various operations using four positive integers represented by the letters a, b, c and d. The integers represented by the letters may change from question to question, but the operations to be done remain the same.

37.

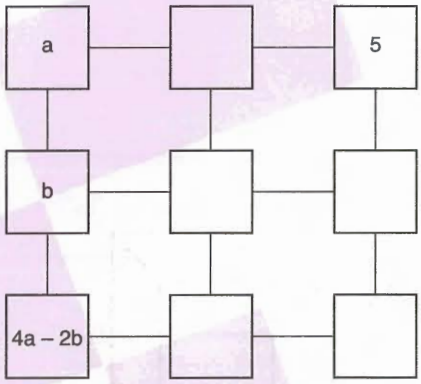


Yukarıda verilen şekle göre c kaçtır?

According to the figure above, what is the value of c?

A) 2 B) 3 C) 4 D) 5 E) 6

38.

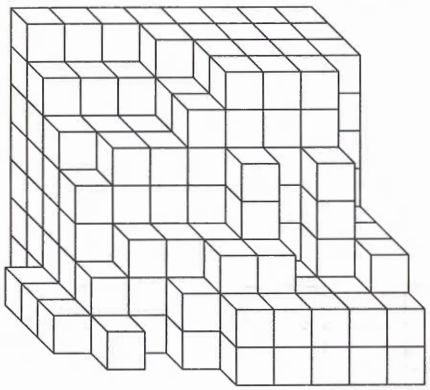


Yukarıda verilen şekle göre a kaçtır?

According to the figure above, what is the value of a ?

A) 6 B) 5 C) 4 D) 3 E) 2

39.

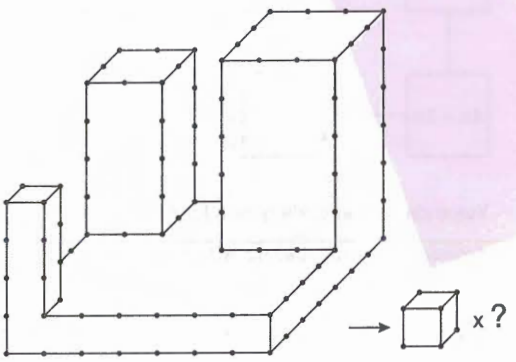


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there given figure above?

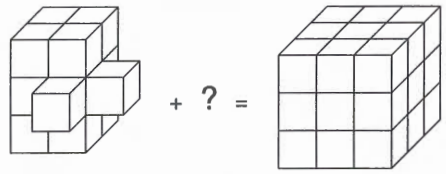
A) 254 B) 255 C) 256 D) 257 E) 258

40.

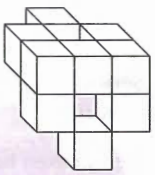


A) 112 B) 113 C) 114 D) 115 E) 116

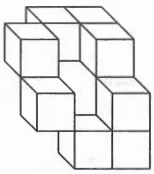
41.



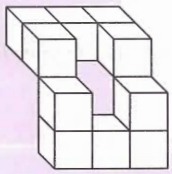
A)



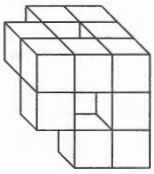
B)



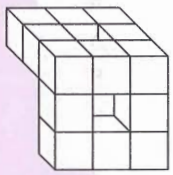
C)



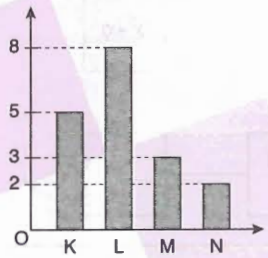
D)



E)



42.

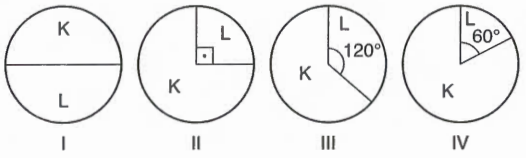


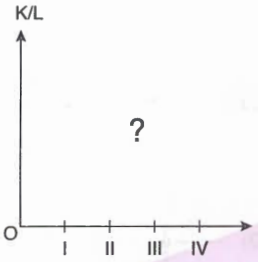


$\Rightarrow (\beta + \theta) - (\alpha + \gamma) = ?$

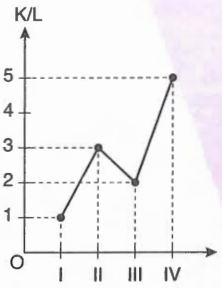
A) 50 B) 60 C) 70 D) 80 E) 90

43.

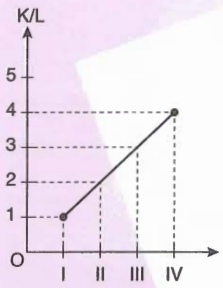




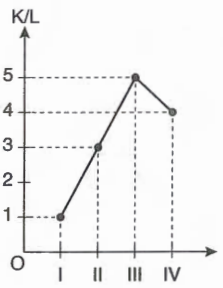
A)



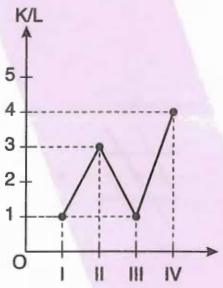
B)



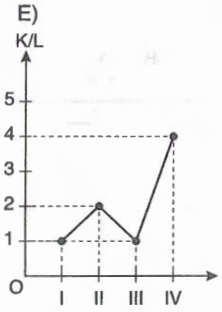
C)



D)

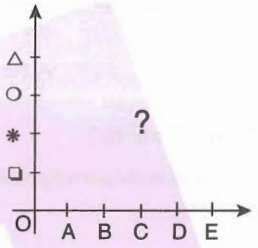


E)

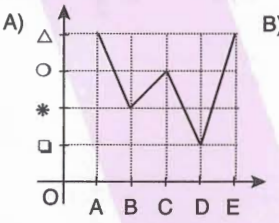


44.

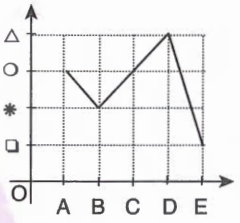
	A	B	C	D	E
△				✓	✓
○		✓			
✱			✓		
❑	✓				



A)



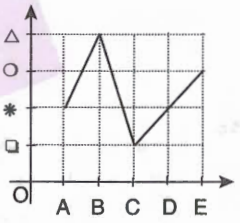
B)



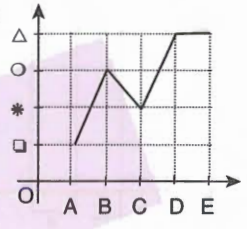
C)



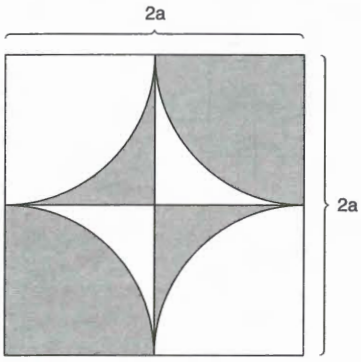
D)



E)



45.

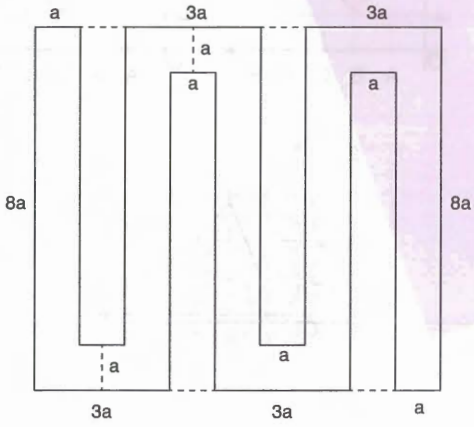


Yukarıdaki şekilde, taralı alan kaç a^2'dir?

What is the area of the shaded field in the given figure above, in unit of a^2?

A) 1 B) $\frac{3}{2}$ C) 2 D) $\frac{5}{2}$ E) 3

46.

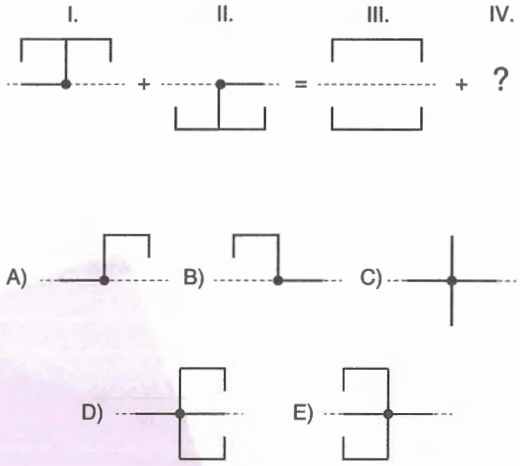


Yukarıdaki şeklin çevresi kaç a'dır?

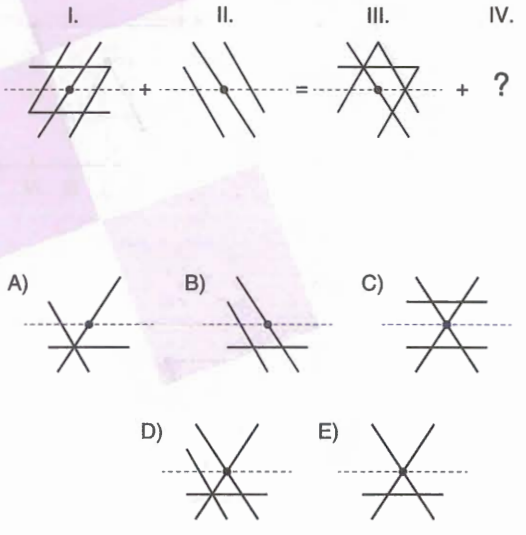
What is the perimeter of the given figure above, in unit of a?

A) 74 B) 78 C) 86 D) 90 E) 92

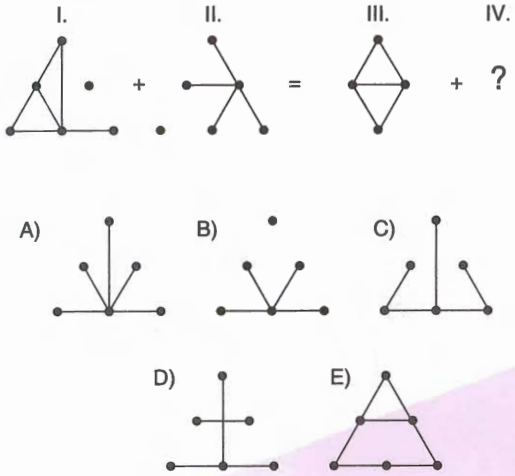
47.

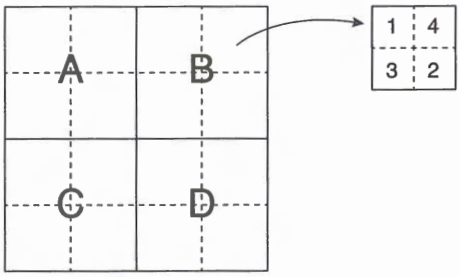


48.



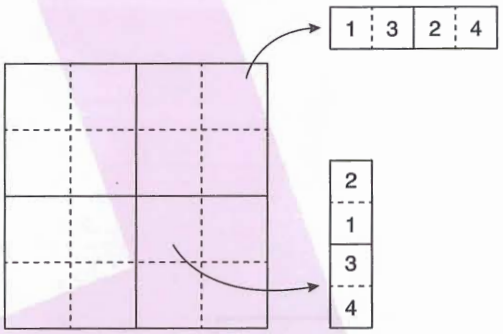
49.





Şekilde verilen 4 x 4'lük kare matriste, A, B, C, D kare bölgelerde her sayı veya şekil yalnızca bir kez kullanılacaktır.

Given in the figure 4x4 square matrix above, each number or figure will be used only 1 time in A, B, C, D squares.



Her satır ve sütunda her sayı veya şekil yalnızca 1 kez kullanılacaktır.

Each number or figure will be used only 1 time in each row and column.

50 - 51. soruları yukarıdaki bilgiye göre cevaplayınız.

Answer the questions 50 - 51 according to the information above.

50.

	3	2	B
			4
1	A		
		1	2

⇒ A + B = ?

A) 2 B) 3 C) 4 D) 5 E) 7

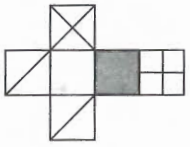
51.

	3		A
	1		B
3		1	
1		2	

⇒ A + B = ?

A) 3 B) 4 C) 5 D) 6 E) 7

52.



A) 

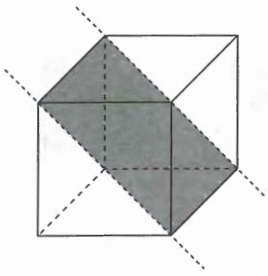
B) 

C) 

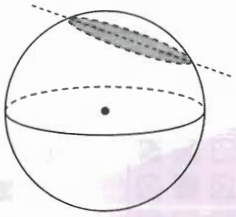
D) 

E) 

53.



→ A



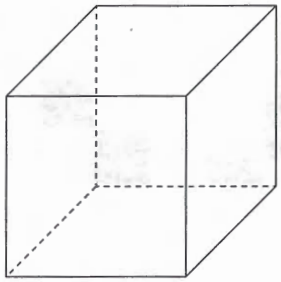
→ B

Yukarıdaki geometrik şekiller, şekildeki gibi kesildiğinde ortaya çıkan şekillerin kesit alanları aşağıdakilerden hangisidir?

When the 3D figure above is cut as it is shown, which of the following below will be the cross section area?

	A	B
A)		
B)		
C)		
D)		
E)		

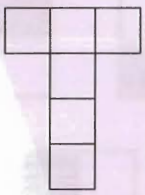
54.



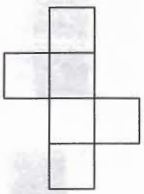
Aşağıdakilerden hangisi, yukarıdaki küpün açılımlarından biri değildir?

Which of the following is not the unfolded form of the given cube above?

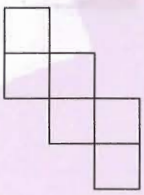
A)



B)



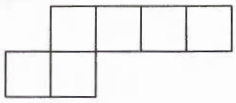
C)



D)



E)

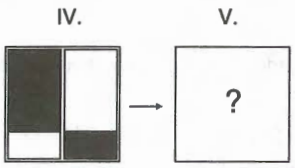


55.

I. II. III.



IV. V.



A) 

B) 

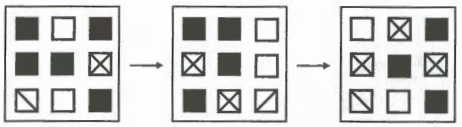
C) 

D) 

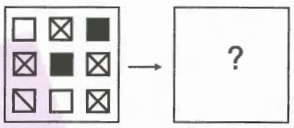
E) 

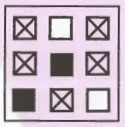
56.

I. II. III.

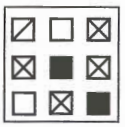


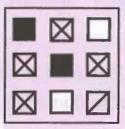
IV. V.

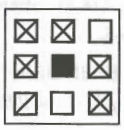


A) 

B) 

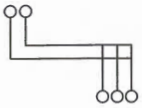
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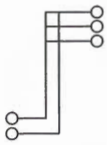
D) 

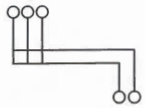
E) 

57. Aşağıdakilerden hangisi diğerlerinden farklıdır?

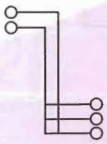
Which figure is the odd one out?

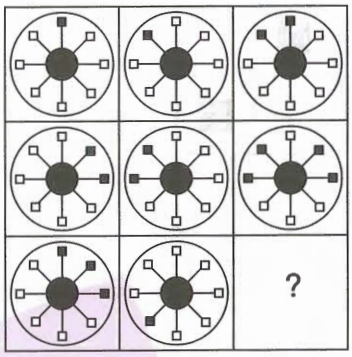
A) 

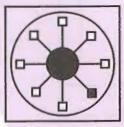
B) 

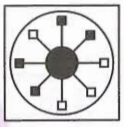
C) 

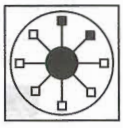
D) 

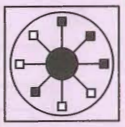
E) 

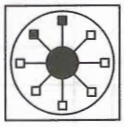
58. 

A) 

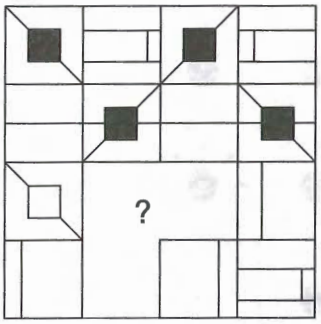
B) 

C) 

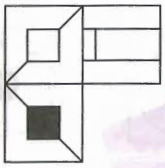
D) 

E) 

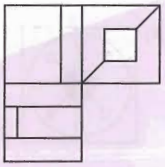
59.



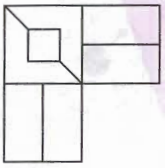
A)



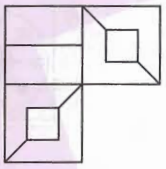
B)



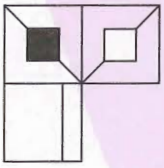
C)



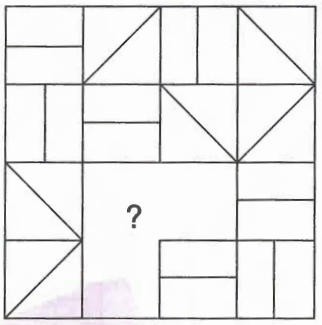
D)



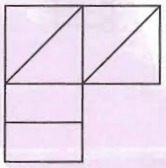
E)



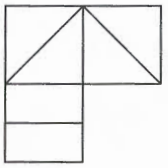
60.



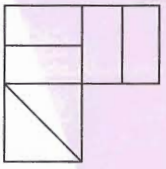
A)



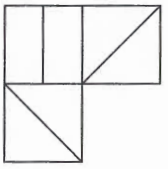
B)



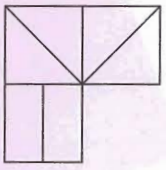
C)



D)



E)



61. $\left(\frac{11}{13}-\frac{9}{12}-\frac{7}{15}\right)-\left(-\frac{15}{13}-\frac{33}{12}+\frac{38}{15}\right)$

A) -2 B) -1 C) 1 D) 2 E) 3

62. $\dfrac{\dfrac{7}{3-\dfrac{4}{1-\dfrac{2}{x-1}}}}{} = 1$

$\Rightarrow x = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 2 D) 3 E) 7

63. $15^n = 7$

$\Rightarrow 3^{n+1} \cdot 5^{n-1} = ?$

A) $\frac{7}{5}$ B) $\frac{5}{7}$ C) $\frac{13}{5}$ D) $\frac{21}{5}$ E) 4

64. $(-a^2)^3 \cdot (-a^{-3})^2 \cdot (a^{-1})^3 = ?$

A) -1 B) $-a^3$ C) $-a^{-3}$ D) a^3 E) a^{-3}

65. $\sqrt[4]{7+4\sqrt{3}} = ?$

A) $\frac{\sqrt{3}+1}{\sqrt{2}}$ B) $\frac{\sqrt{3}-1}{\sqrt{2}}$ C) $\frac{\sqrt{3}+1}{2}$

D) $\frac{\sqrt{3}-1}{2}$ E) $\sqrt{3}+1$

66. $1 < |x+3| \leq 2$

$\Rightarrow$ S.S. = ?

A) R B) $R \setminus [-4, -2]$

C) $[-4, 2]$ D) $[-5, -4) \cup (-2, -1]$

E) Ø

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67. $x < y < 0$

$\Rightarrow \dfrac{x^2 + 2|xy| + y^2}{|x-y| - 2|x|} = ?$

A) $x - y$ B) $x + y$ C) $y - x$ D) $-x - y$ E) 1

68. $x^2 - 2x + 4m + 4 = 0$

S.S. $= \{x_1, x_2\}$

$3x_1 + x_2 = -6$

$\Rightarrow m = ?$

A) -7 B) -4 C) 0 D) 4 E) 7

69. $5^{\log_5(\log_3(2x-3))} = 1$

$\Rightarrow x = ?$

A) 3 B) 6 C) 8 D) 11 E) 15

70. $z + |z| = 8 + 4i$

$\Rightarrow Im(z) + Re(z) = ?$

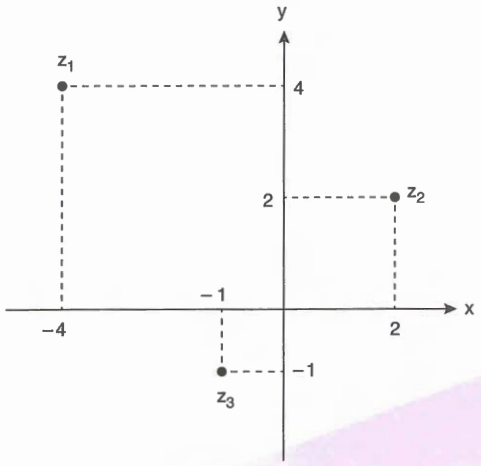
A) 3 B) 4 C) 7 D) 10 E) 12

71. $\log_2 5 = x$

$\Rightarrow \log_5 10 + \log_5 20 = ?$

A) x^2 B) $\dfrac{1}{x}$ C) $\dfrac{2x+3}{x}$ D) $\dfrac{2x+1}{3}$ E) $\dfrac{x-3}{3}$

72.



$$\Rightarrow \frac{|z_1 \cdot z_3^2|}{|z_2|} = ?$$

A) 2 B) $2\sqrt{2}$ C) $4\sqrt{2}$ D) 4 E) 8

73. $A = [a_{ij}]_{mxn}$

$B = [b_{ij}]_{2xk}$

$C = [c_{ij}]_{1x5}$

$A \cdot B = C$

$\Rightarrow m + n + k = ?$

A) 10 B) 8 C) 5 D) 3 E) 2

74. $f: R \setminus \{1\} \longrightarrow R \setminus \{-2\}$

$$f(x) = \frac{2 - ax}{3x + b}$$

$\Rightarrow a \cdot b = ?$

A) − 18 B) − 6 C) − 3 D) 9 E) 18

75. $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = 4$

$2a - 3c + e = 12$

$-3d + f = -3$

$\Rightarrow b = ?$

A) 1 B) 2 C) 3 D) − 1 E) − 2

76. $\frac{2}{1-x^2} + \frac{x}{x+1} + \frac{1}{x-1} = ?$

A) 1 B) x C) 2x D) − 2x E) − x

77. $\frac{n!}{(n-2)!}\cdot\frac{(n-1)!}{(n+1)!}=\frac{5}{7}$

$\Rightarrow n = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

78. $\sum_{k=4}^{13}\left(\frac{4}{k^2-2k}\right)=?$

A) $\frac{39}{40}$ B) $\frac{40}{39}$ C) $\frac{37}{26}$ D) $\frac{26}{37}$ E) $\frac{35}{26}$

79. $(2a3)_b = (1b\dot{2})_5$

$\Rightarrow a + b = ?$

A) 3 B) 4 C) 7 D) 9 E) 11

80. $x \in Z$

$$\frac{(x^2-4)\cdot(2x+6)}{(x^2-4x+4)\cdot|x+3|}\le 0$$

$\Rightarrow \max(x) = ?$

A) -3 B) -2 C) 0 D) 1 E) 2

81. $f(x) = \ln(2x^2-5)$

$\Rightarrow \lim_{h\to 0}\left(\frac{f(2+3h)-f(2-2h)}{h}\right)=?$

A) 10 B) $\frac{15}{2}$ C) $\frac{40}{3}$ D) $\frac{30}{7}$ E) 15

82. $a, b, k \in R$

$$f(x)=\begin{cases} ax+b & x<1 \\ 5 & x=1 \\ x^2+a & x>1 \end{cases}$$

$\lim_{x\to 1} f(x) = k$

$\Rightarrow b = ?$

A) -2 B) -1 C) 1 D) 2 E) 4

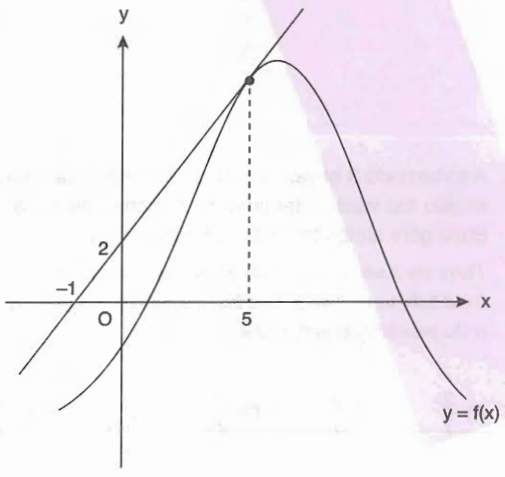
83. $\int \frac{1+\tan x}{\sec x} dx = ?$

A) $\tan^2 x + \sec x + c$ B) $\frac{\tan^2 x}{2} + c$

C) $\sin x + \cos x + c$ D) $\sin x - \cos x + c$

E) $\cos x - \sin x + c$

84.



$g(x) = x^2 \cdot f(3x - 1)$

$\Rightarrow g'(2) = ?$

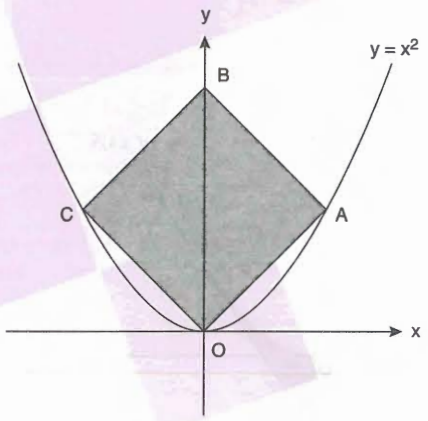
A) 96 B) 72 C) 64 D) 48 E) 24

85. $\int_1^3 \frac{5x+11}{x^2+4x+3} dx = ?$

A) ln3 B) 2ln9 C) ln9

D) ln12 E) ln18

86.



OABC kare *(OABC square)*

$\Rightarrow$ A(OABC) = ?

A) 2 B) $2\sqrt{2}$ C) 4 D) 8 E) 16

87. $n \in Z$

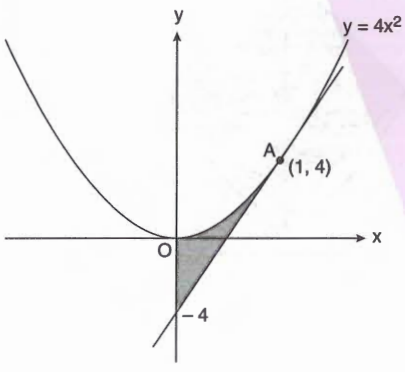
P(x) bir polinom *(P(x) polynomial)*

$$P(x) = 4x^2 - 3x^{\left(\frac{15}{n+1}\right)} - 7$$

$\Rightarrow \sum n = ?$

A) 15 B) 20 C) 23 D) 25 E) 28

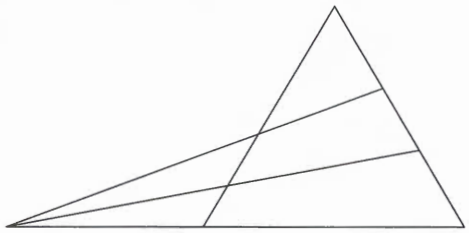
88.



$\Rightarrow$ Taralı bölgenin alanı *(Shaded area)* = ?

A) $\frac{1}{3}$ B) $\frac{2}{3}$ C) $\frac{4}{3}$ D) 2 E) 3

89.



Şekilde kaç farklı üçgen vardır?

How many different triangle are there on the figure?

A) 6 B) 9 C) 12 D) 15 E) 18

90. A torbasında 3 beyaz, 4 kırmızı; B torbasında 5 beyaz, 2 kırmızı top vardır. Herhangi bir torbadan bir top alınıyor. Buna göre alınan topun beyaz gelme olasılığı nedir?

There are 3 white, 4 red balls in the bag A and there are 5 white, 2 red balls in the bag B. One ball is selected from any bag. What is the possibility of getting a white ball?

A) $\frac{2}{7}$ B) $\frac{3}{7}$ C) $\frac{4}{7}$ D) $\frac{5}{7}$ E) $\frac{6}{7}$

91. Merve bir merdivenin basamaklarını 3'er 3'er inip, 4'er 4'er çıkıyor ve toplam 35 adım atıyor. Buna göre merdiven kaç basamaklıdır?

Merve climbs down a stair 3 times at a time and climbs up 4 times at a time. According to this situation how many steps does the stair have?

A) 55 B) 60 C) 65 D) 100 E) 120

92. $\int_{-2}^{2} x(x^3 + \sin^2 x)\,dx = ?$

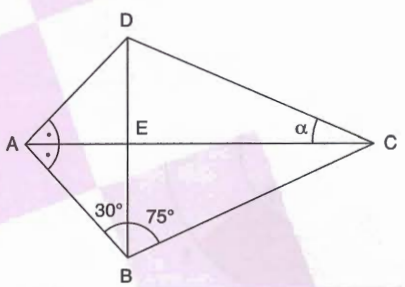
A) $-\frac{64}{3}$ B) $\frac{\sin 2}{5}$ C) $\frac{\sin^3 2}{6}$ D) $\frac{64}{5}\sin 2$ E) $\frac{64}{5}$

93. $i^2 = -1$

$$\begin{vmatrix} 1 & i & i \\ i & 0 & i-1 \\ -i & 0 & 1+i \end{vmatrix} = ?$$

A) $-i$ B) 1 C) i D) $2i$ E) 2

94.



$m(\widehat{DAC}) = m(\widehat{CAB})$

$m(\widehat{ABD}) = 30°$

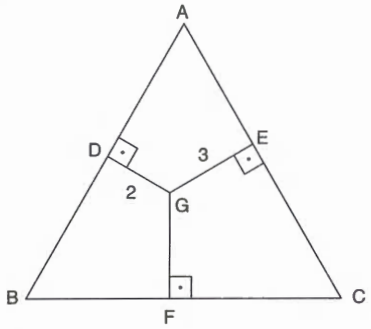
$m(\widehat{DBC}) = 75°$

$m(\widehat{DCA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 5 B) 10 C) 15 D) 40 E) 60

95.



ABC eşkenar üçgen *(ABC equilateral triangle)*

[DG] ⊥ [AB]

[GE] ⊥ [AC]

[GF] ⊥ [BC]

|DG| = 2 br

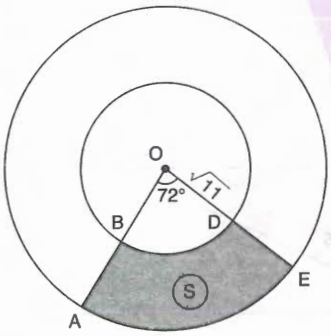
|GE| = 3 br

Ç(ABC) = $24\sqrt{3}$ br

⇒ |FG| = ?

A) 5 B) 7 C) 9 D) 12 E) 15

96.



Merkezleri O olan 2 çember
(Two circles having the same center which is "O")

$m(\widehat{AOE}) = 72°$

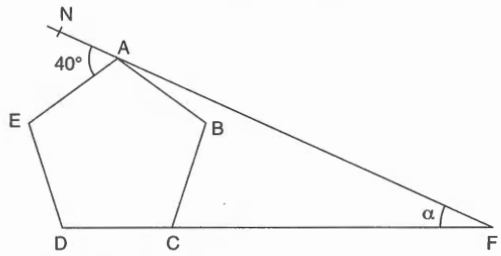
$|OD| = \sqrt{11}$ br

$S = 5\pi$ br^2

⇒ |OA| = ?

A) 3 B) 4 C) 5 D) 6 E) 8

97.



ABCDE düzgün beşgen *(ABCDE regular pentagon)*

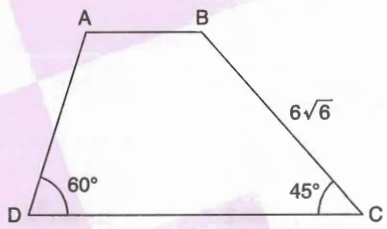
$m(\widehat{EAN}) = 40°$

$m(\widehat{DFN}) = \alpha$

⇒ α = ?

A) 4 B) 8 C) 18 D) 36 E) 72

98.



ABCD yamuk *(ABCD trapezoid)*

$m(\widehat{ADC}) = 60°$

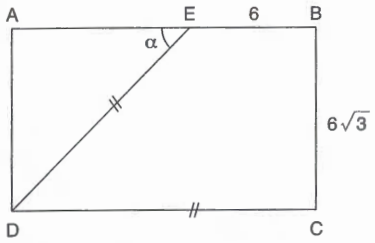
$m(\widehat{BCD}) = 45°$

$|BC| = 6\sqrt{6}$ br

⇒ |AD| = ?

A) 6 B) 12 C) 24 D) $4\sqrt{3}$ E) $6\sqrt{3}$

99.



ABCD dikdörtgen *(ABCD rectangle)*

$|BC| = 6\sqrt{3}$ br

$|EB| = 6$ br

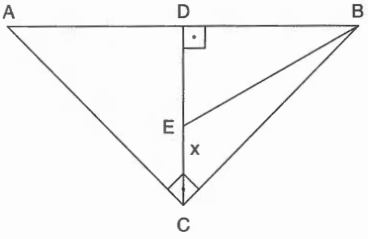
$|ED| = |DC|$

$m(\widehat{AED}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 45 C) 60 D) 75 E) 150

100.



$[AB] \perp [DC]$

$[AC] \perp [CB]$

$|AD| = |DB| = 15$ br

$|EB| = 17$ br

$|EC| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

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DENEME SINAVI 22 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
D	D	E	E	A	E	E	A	B	E	A	D	D	D	A	A	B	D	D	B

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
E	B	C	C	D	E	B	B	C	D	A	A	A	C	B	D	C	D	D	B

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
E	D	A	E	C	D	C	A	C	B	A	C	E	E	C	E	E	D	B	D

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
C	C	D	C	A	D	B	A	A	C	C	D	B	A	C	A	A	E	C	E

81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
C	C	D	B	E	A	B	C	B	C	B	E	D	C	B	D	A	B	C	E

DENEME SINAVI 23
TRIAL EXAM 23

1. ○ △ ❑ ▽
❑ ▷ ▽ ○
▷ ○ △ ❑
△ ❑ ○ ▷
❑ ▽ ▷ △

⇒ ○ △ ❑ ▽ = ?

A) 4256 B) 2541 C) 5612 D) 1425 E) 5164

2. 3 4 5 ▲ ✱ ❑
2 1 6 ○ ◆ ✚
5 4 3 △ ● ■
8 7 9 ❑ ✱ ▲
6 1 2 ■ ● △

⇒ 879 = ?

A) ▲ ✱ ❑ B) ○ ◆ ✚ C) △ ● ■
D) ❑ ✱ ▲ E) ■ ● △

3. H L M G N 7 4 6 8 9
K M H N G 9 5 7 6 4
M N G K H 8 7 9 4 6
N H L M K 6 5 4 9 7
G L N H M 4 9 5 7 8

⇒ K M H N G = ?

A) 74689 B) 95764 C) 87946
D) 65497 E) 49578

4.

I:	5	12	24	21	?	56	53
II:	6	14	?	29	44	88	117

A) 28, 28 B) 28, 17 C) 38, 27
D) 43, 18 E) 48, 26

5.

I:	87	89	93	95	99	101
II:	13	19	27	33	41	47
III.	54	57	62	65	70	73
IV.	?	?	?	?	?	?

A) 54 63 73 82 92 101
B) 17 27 39 48 58 47
C) 14 17 26 36 45 54
D) 72 81 92 101 113 121
E) 14 23 33 42 51 61

6. I. $(3a - 2) \blacktriangle (2b + 1) = 5a - 4b$

II. $a^2 \blacksquare (b + 1) = 2a + \frac{b}{2}$

III. $(7 \blacktriangle 5) - (16 \blacksquare 7) = ?$

A) –1 B) –2 C) –3 D) –4 E) –5

7. I. $\blacksquare \cdot (\bullet + \blacktriangle) = 63$

II. $\bullet \cdot (\blacktriangle + \blacksquare) = 48$

III. $\blacktriangle \cdot (\bullet + \blacksquare) = 39$

IV. $\blacksquare \cdot \blacktriangle + \bullet \cdot \blacktriangle + \bullet \cdot \blacksquare = ?$

Yukarıdaki eşitliklerde ●, ▲ ve ■ sembolleri belli birer sayının yerine kullanılmıştır.

Buna göre $\blacksquare \cdot \blacktriangle + \bullet \cdot \blacktriangle + \bullet \cdot \blacksquare$ nın değeri nedir?

In the equations above, the symbols ●, ▲ and ■ each stand for a specific number.

What is the value of $\blacksquare \cdot \blacktriangle + \bullet \cdot \blacktriangle + \bullet \cdot \blacksquare = ?$

A) 25 B) 50 C) 75 D) 100 E) 125

8. I. $64 \bullet 15 = 7$

II. $83 \bullet 58 = 5$

III. $98 \bullet 34 = 8$

IV. $56 \bullet 40 = ?$

Yukarıdaki eşitlikler ● işaretinin görevini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the exuations above, the function of ● is unchanged. What is the solution to the last equation?

A) 2 B) 4 C) 6 D) 9 E) 11

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9. I. $14 \blacksquare 10 = 18$

II. $18 \blacksquare 14 = 22$

III. $20 \blacksquare 16 = 24$

IV. $16 \blacksquare 12 = ?$

Yukarıdaki eşitlikler ■ işaretinin görevini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ■ is unchanged. What is the solution to the last equation?

A) 14 B) 16 C) 17 D) 20 E) 23

10. I. $65 \blacktriangle 34 = 18$

II. $78 \blacktriangle 58 = 16$

III. $94 \blacktriangle 27 = 22$

IV. $83 \blacktriangle 19 = ?$

Yukarıdaki eşitlikler ▲ işaretinin görevini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ▲ is unchanged. What is the solution to the last equation?

A) 7 B) 10 C) 12 D) 15 E) 24

11. I. $٥ \bullet ٤ = \frac{8}{15}$

II. $2 \bullet ٩ = \frac{9}{4}$

III. $٥ \bullet ٦ = \frac{13}{42}$

IV. $٤ \bullet 3 = ?$

Yukarıdaki eşitlikler ● işaretinin görevini belirtmektedir. Buna göre, son eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ● is enchanged. What is the solution to the last equation?

A) $\frac{2}{3}$ B) $\frac{7}{9}$ C) $\frac{5}{3}$ D) $\frac{12}{7}$ E) $\frac{10}{3}$

12. I. $(8 \bullet 3) \blacksquare (9 \blacktriangle 1) = 50$

II. $(7 \blacktriangle 2) \bullet (5 \blacksquare 1) = 4$

III. $(6 \blacksquare 5) \bullet (8 \blacktriangle 5) = 17$

IV. $(9 \bullet 4) \blacksquare (3 \blacktriangle 6) = ?$

Yukarıdaki eşitlikler ●, ■ ve ▲ işaretlerinin görevini belirtmektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the functions ●, ■ and ▲ are unchanged. What is the solution of the fourth equation?

A) 45 B) 39 C) 22 D) 16 E) 4

13. I. $\sqrt{\frac{1}{a}} \blacktriangle \sqrt{\frac{1}{b}} = a + b$

II $4 \blacktriangle 1 = ?$

Yukarıdaki eşitlikler ▲ işaretinin görevini belirtmektedir. Buna göre, soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ▲ is unchanged. What is the solution to the last equation?

A) 2 B) $\frac{3}{2}$ C) 5 D) $\frac{17}{16}$ E) 7

14.

6	4	7	5	9
10	11	12	14	
21	23	A		
44	49			
B				

A = ? B = ?

Yukarıdaki şekilde A ve B'nin yerine hangi sayılar gelmelidir?

Which numbers do A and B stand for in the figure above?

	K	L
A)	26	84
B)	26	86
C)	52	84
D)	52	93
E)	26	93

15.

I. 4, 7, 10 — 3 ⟹ 18

II. 7, 8, 9 — 5 ⟹ 19 ⇒ K + L = ?

III. 5, K, L — 4 ⟹ 23

I. ve II. satırlarda belirlenen ilişkiye göre, II. satırdaki K ve L'nin toplamı kaçtır?

What is the sum of K and L in III, in accordance with the relationship established in I and II?

A) 11 B) 12 C) 15 D) 17 E) 22

16.

18	17	34	33	66	65	130	A
36							
33							
66							
63							
B							

⇒ A + B = ?

A) 185 B) 208 C) 255 D) 286 E) 305

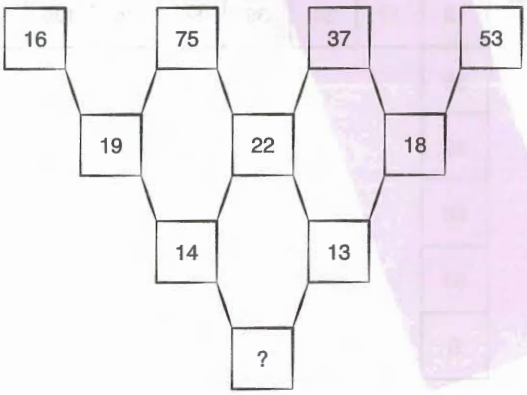
17.

11	36	15	32	19	28	A
38	13	34	17	30	21	B

$\Rightarrow A + B = ?$

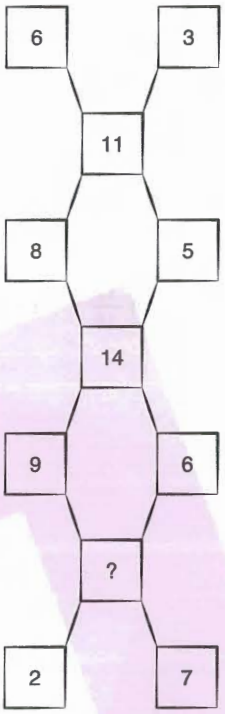
A) 38 B) 42 C) 49 D) 52 E) 61

18.



A) 6 B) 9 C) 15 D) 27 E) 38

19.



A) 8 B) 12 C) 14 D) 16 E) 22

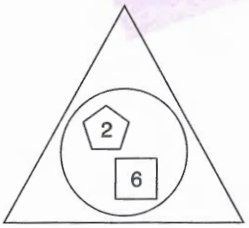
20.

I. 

$\Rightarrow 3 \cdot \left(6^2 + \frac{4}{2}\right)$

II. 

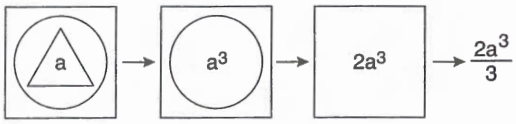
$\Rightarrow$ 26

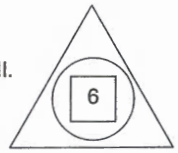
III. 

$\Rightarrow$?

A) 43 B) 64 C) 72 D) 81 E) 144

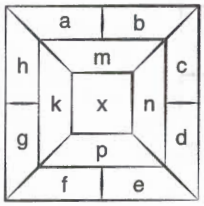
21.

I. 

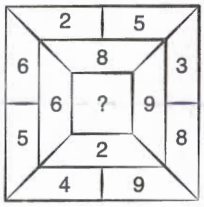
II. 

A) 1 B) 8 C) 27 D) 64 E) 125

22.

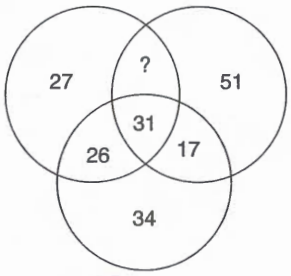
I. 

$$\Rightarrow \frac{a\cdot b+c\cdot d+e\cdot f+g\cdot h}{k+m+n+p}=x$$

II. 

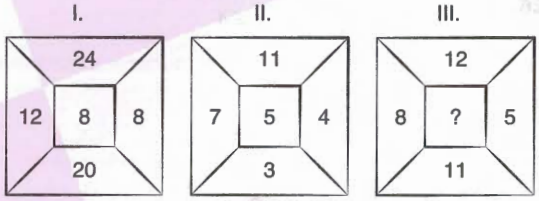
A) 2 B) $\frac{16}{5}$ C) 4 D) $\frac{23}{8}$ E) 5

23.



A) 12 B) 17 C) 19 D) 23 E) 32

24.



A) 3 B) 6 C) 7 D) 11 E) 14

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25.

I.

	16	
	11	
	9	
4	7	5

II.

	18	
	14	
	10	
6	8	4

III.

	A	
	B	
	C	
9	2	5

$\Rightarrow A + B + C = ?$

A) 28 B) 32 C) 36 D) 41 E) 52

26.

I.  = 4

II.  = 2

III.  = 1

IV.  = ?

A) 1 B) 2 C) 3 D) 4 E) 6

27.

6	7	5	9
4	8	10	11
7	9	4	10
8	6	16	?

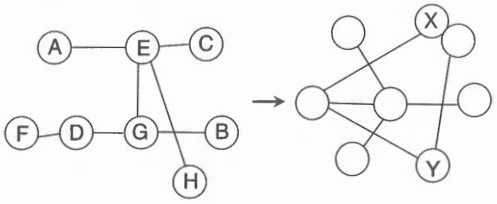
A) 7 B) 9 C) 11 D) 13 E) 15

28.

6	8	10	4
5	12	4	7
11	3	6	8
6	5	?	9

A) 2 B) 4 C) 6 D) 8 E) 10

29.



Şekil I
Figure I

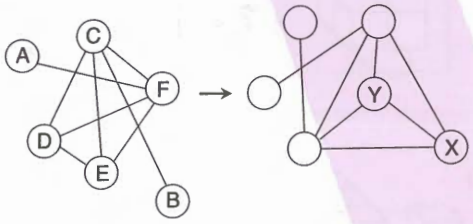
Şekil II
Figure II

II. şekilde X ve Y nin yerine gelmesi gereken harfleri bulunuz.

Find the letters that correspond to X and Y in figure II.

	X	Y
A)	D	E
B)	H	G
C)	F	C
D)	B	D
E)	H	D

30.



Şekil I
Figure I

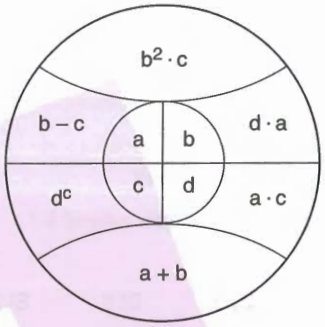
Şekil II
Figure II

II. şekilde X ve Y nin yerine gelmesi gereken harfleri bulunuz.

Find the letters that correspond to X and Y in figure II.

	X	Y
A)	E	A
B)	C	E
C)	D	C
D)	C	A
E)	E	D

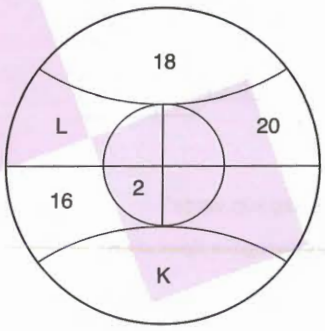
31 – 32 soruları aşağıdaki bilgilere göre cevaplayınız.
Answer the questions 31 – 32 according to the information below.



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif tamsayıyı içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir; fakat, bunlarla yapılacak işlemler her soruda aynıdır.

The figure above has been organized according to various operations using four positive integers represented by the letters a, b, c and d. The integers represented by the letters may change from question to question, but the operations to be done remain the same.

31.



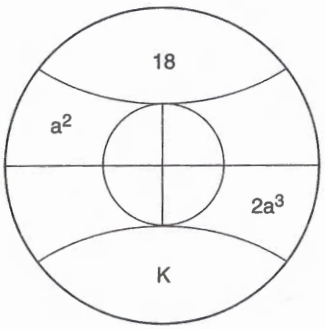
Yukarıda verilen şekle göre K + L kaçtır?

According to the figure above, what is the value of K + L ?

A) 5 B) 7 C) 9 D) 11 E) 14

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32.

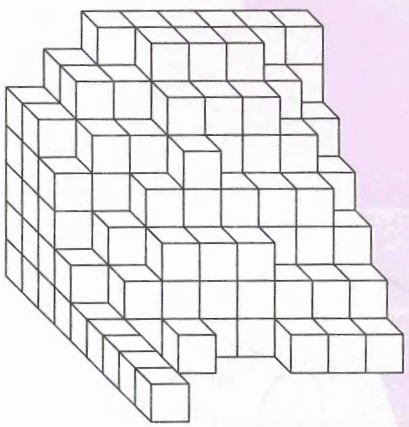


Yukarıda verilen şekle göre K kaçtır?

According to the figure above, what is the value of K ?

A) 3 B) 4 C) 5 D) 6 E) 7

33.

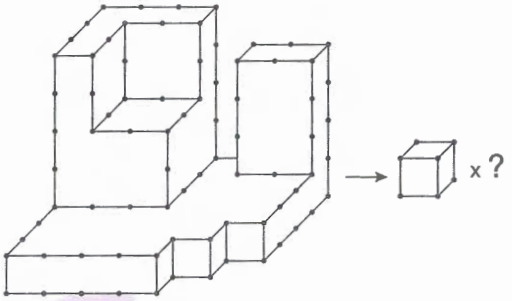


Yukarıdaki şekilde kaç küp vardır?

How many cubes are there given figure above?

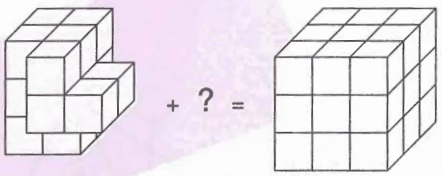
A) 197 B) 198 C) 199 D) 200 E) 201

34.

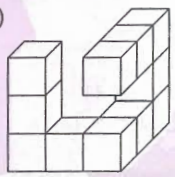


A) 65 B) 66 C) 67 D) 68 E) 69

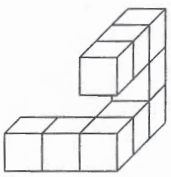
35.



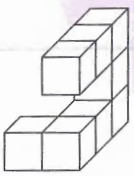
A)



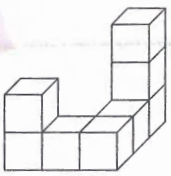
B)



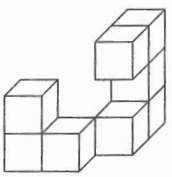
C)



D)

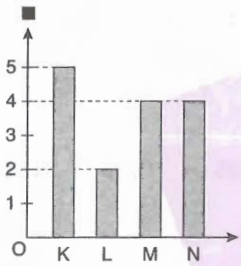


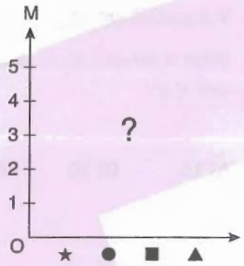
E)



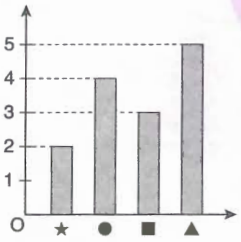
36.

	K	L	M	N
★	1	6	2	2
●	3	4	5	3
■	5	2	4	4
▲	7	3	3	2

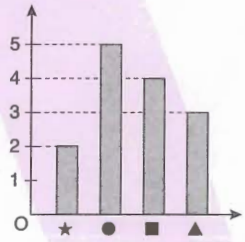




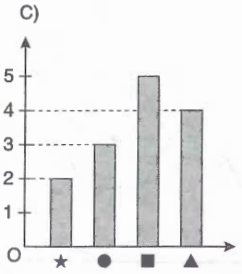
A)



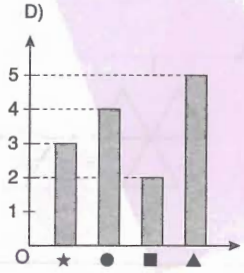
B)



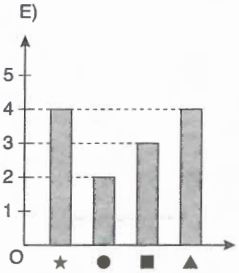
C)



D)

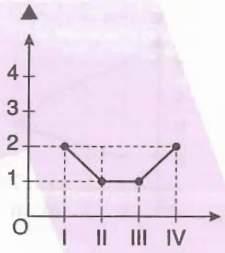


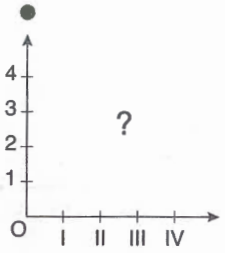
E)



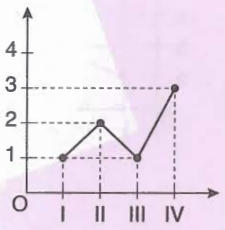
37.

I	▲	▲	●	■	■
II	▲	●	●	●	■
III	▲	●	■	■	■
IV	▲	●	■	●	▲

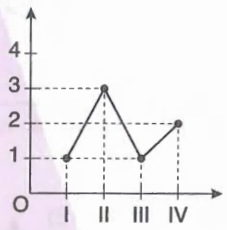




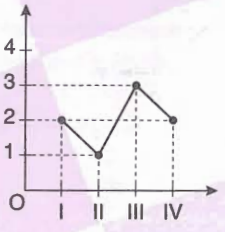
A)



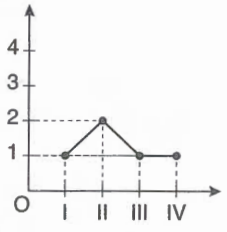
B)



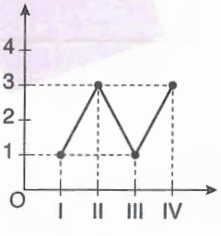
C)



D)

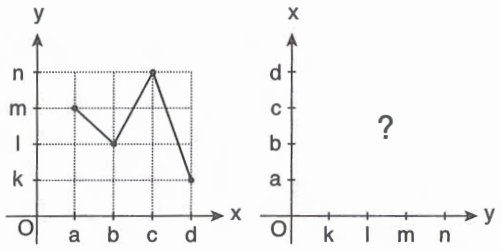


E)

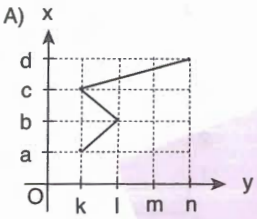


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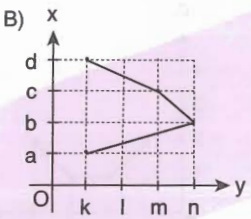
38.



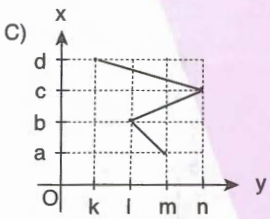
A)



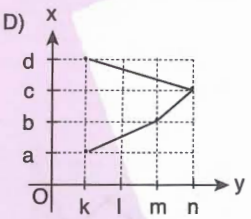
B)



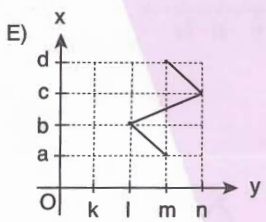
C)



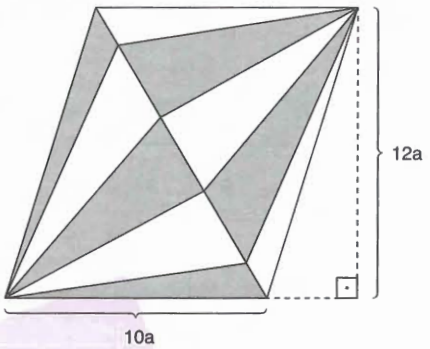
D)



E)



39.

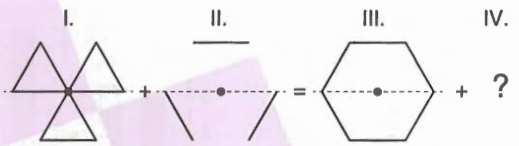


Yukarıdaki şekilde, taralı alan kaç a^2'dir?

What is the area of the shaded field in the given figure above, in unit of a^2?

A) 15 B) 20 C) 25 D) 30 E) 60

40.



A)



B)



C)



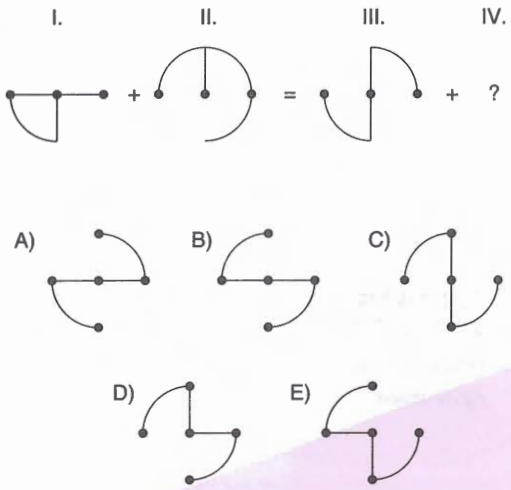
D)

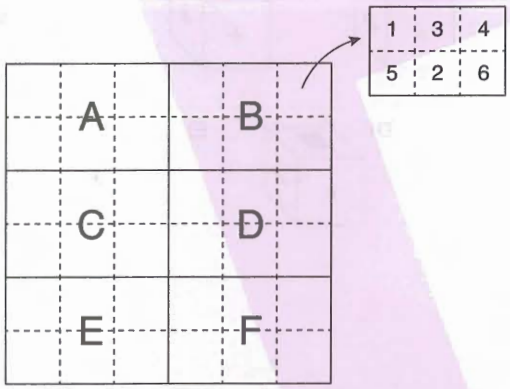


E)



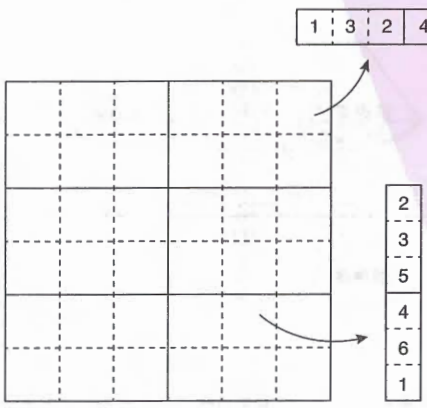
41.





Şekilde verilen 6 x 6'lık matriste, A, B, C, D, E ve F bölgelerinde her sayı veya şekil yalnızca bir kez kullanılacaktır.

Given in the figure 6x6 matrix above, each number or figure will be used only 1 time in A, B, C, D, E and F squres.



Her satır ve sütunda her sayı veya şekil yalnızca 1 kez kullanılacaktır.

Each number or figure will be used only 1 time in each row and column.

42 - 43. soruları yandaki bilgiye göre cevaplayınız.

Answer the questions 42 - 43 according to the information side.

42.

5		3		?	
				2	
3		6			2
		1	6		5
					6
	1	2			

A) 1 B) 2 C) 4 D) 5 E) 6

43.

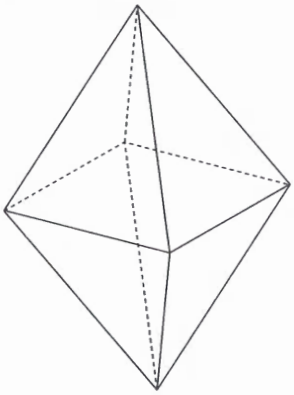
		6	2	5	
	2	3	6		
	5		3	6	
	6				?
2	4				
			5		4

A) 1 B) 2 C) 3 D) 4 E) 5

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44.



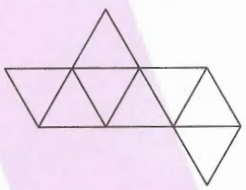
Yukarıdaki üç boyutlu geometrik şeklin açılımı aşağıdakilerden hangisi olamaz?

Which of the following is not the unfolded form of the given 3D figure above?

A)



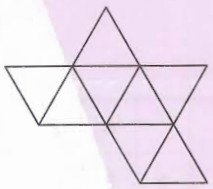
B)



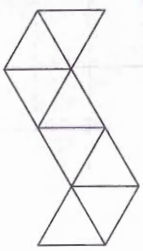
C)



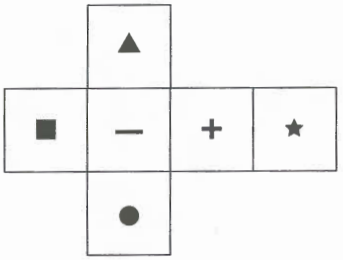
D)



E)



45.



Aşağıdakilerden hangisi, yukarıdaki küpün kapalı hallerinden biri değildir?

Which of the following is not the 3D form of the given unfolded figure above?

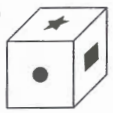
A)



B)



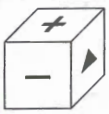
C)



D)

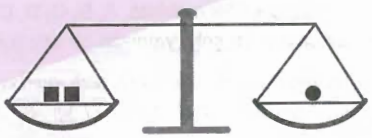


E)

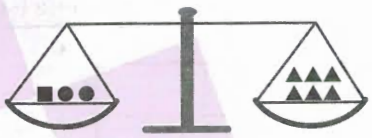


46.

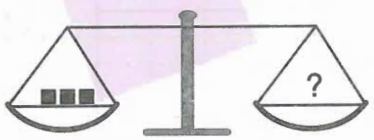
I.



II.

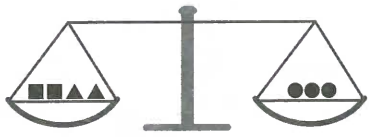


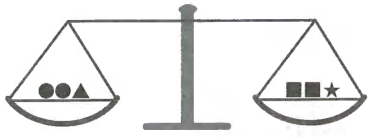
III.

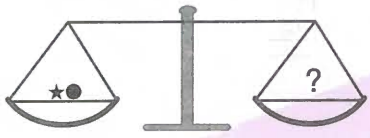


A) ●●■▲ B) ●●●■ C) ▲▲▲▲● D) ▲■■ E) ●■

47.

I. 

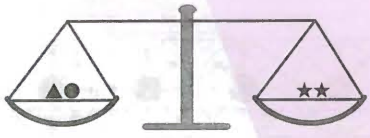
II. 

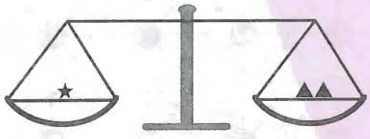
III. 

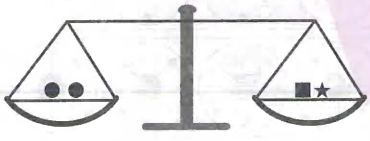
A) ▲▲ B) ▲★ C) ▲▲★

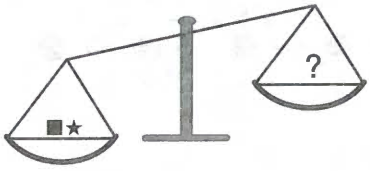
D) ▲▲▲ E) ■■

48.

I. 

II. 

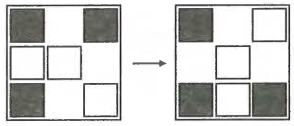
III. 

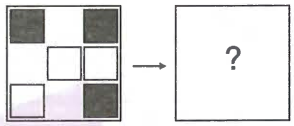
IV. 

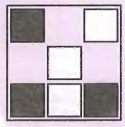
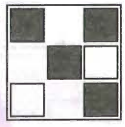
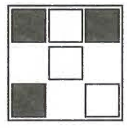
A) ■■ B) ●● C) ●●▲

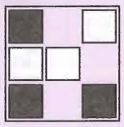
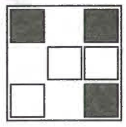
D) ★★▲ E) ●●●

49.

I. 

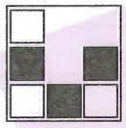
II. 

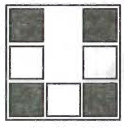
A)  B)  C) 

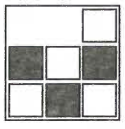
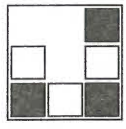
D)  E) 

50.

I.  II.  III. 

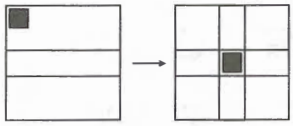
IV.  V. 

A)  B)  C) 

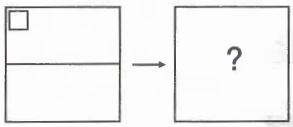
D)  E) 

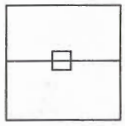
51.

I.



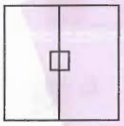
II.

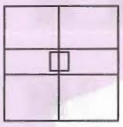


A) 

B) 

C) 

D) 

E) 

52.

I. 

II. 

III. 

IV. 

V. 

A) 

B) 

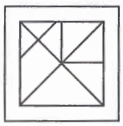
C) 

D) 

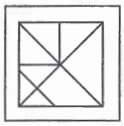
E) 

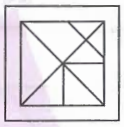
53. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which figure is the odd one out?

A) 

B) 

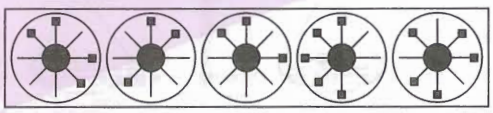
C) 

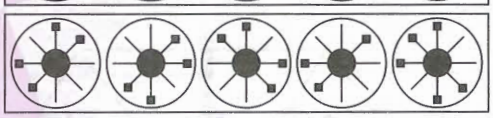
D) 

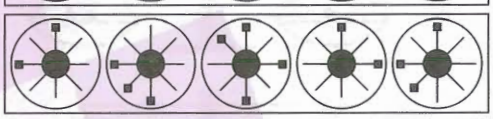
E) 

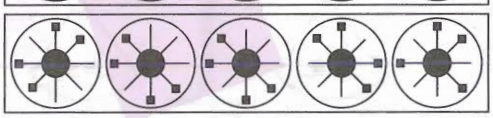
54. Aşağıdakilerden hangisi diğerlerinden farklıdır?

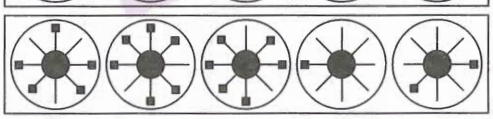
Which figure is the odd one out?

A) 

B) 

C) 

D) 

E) 

55. Aşağıdakilerden hangisi diğerlerinden farklıdır?

Which figure is the odd one out?

A) 

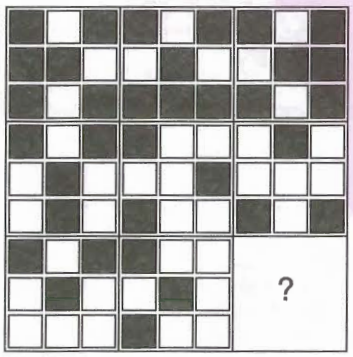
B) 

C) 

D) 

E) 

56.



A) 

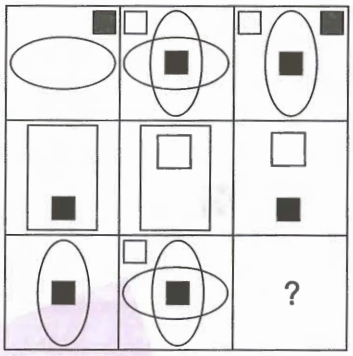
B) 

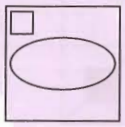
C) 

D) 

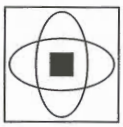
E) 

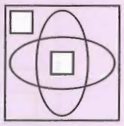
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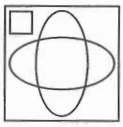


A) 

B) 

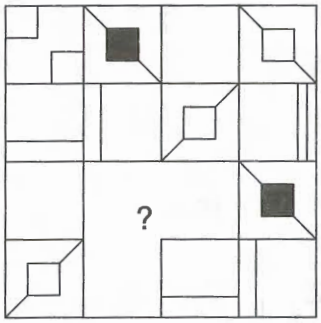
C) 

D) 

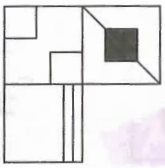
E) 

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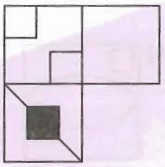
58.



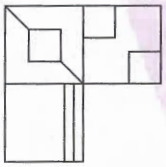
A)



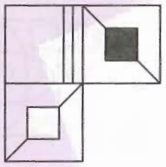
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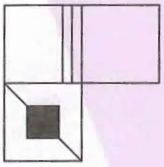
C)



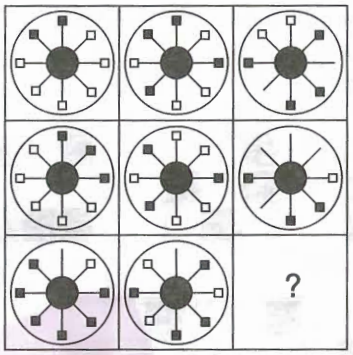
D)



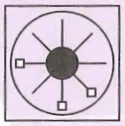
E)



59.



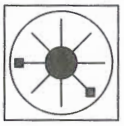
A)



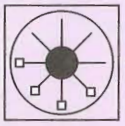
B)



C)



D)



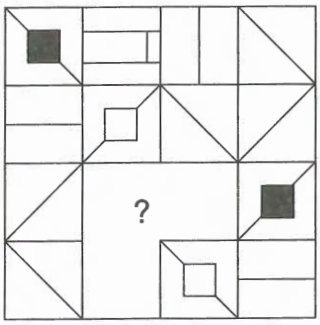
E)

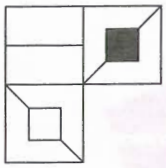


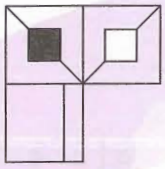
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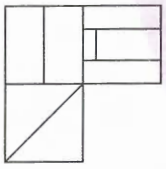
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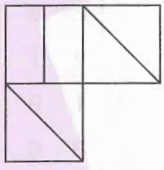
60.

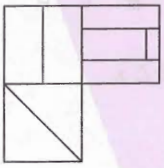


A) 

B) 

C) 

D) 

E) 

61. $\dfrac{5^{14}-4\cdot5^{13}+10\cdot5^{12}}{5^{14}-4\cdot5^{12}}=?$

A) $\frac{6}{7}$ B) $\frac{5}{7}$ C) $\frac{4}{7}$ D) $\frac{1}{2}$ E) $\frac{2}{5}$

62. $\sqrt[3]{32}+3\cdot\sqrt[3]{108}-\sqrt[3]{4000}=?$

A) $3\cdot\sqrt[3]{2}$ B) $\sqrt[3]{2}$ C) $3\cdot\sqrt[3]{4}$ D) $2\cdot\sqrt[3]{4}$ E) $\sqrt[3]{4}$

63. $(123)^2-115\cdot131-8^2=?$

A) -2 B) -1 C) 0 D) 1 E) 2

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64. $x = 2 + \sqrt[3]{3}$

$\Rightarrow (x-3)^3 + 3\cdot(x-3)^2 + 3\cdot(x-3) = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

65. $\dfrac{82,82}{0,82} - \dfrac{(8,\overline{2}+2,\overline{8}):\dfrac{1}{18}}{10} = ?$

A) -9 B) 81 C) 83 D) 91 E) 92

66. $n \in N^+$

$\dfrac{1+3+5+\ldots+(2n-1)}{2+4+6+\ldots+(2n)} = \dfrac{10}{11}$

$\Rightarrow n = ?$

A) 5 B) 10 C) 15 D) 20 E) 25

67. $\dfrac{x}{y} = \dfrac{z}{t} = \dfrac{1}{3}$

$\Rightarrow \left(\dfrac{x^2+y^2}{xy}\right)\cdot\left(\dfrac{z+t}{t}\right) = ?$

A) $\frac{4}{3}$ B) $\frac{11}{3}$ C) $\frac{50}{9}$ D) $\frac{55}{9}$ E) $\frac{40}{9}$

68.

△	C	E	B	İ	R
C	E	B	İ	R	C
E	B	İ	R	C	E
B	İ	R	C	E	B
İ	R	C	E	B	İ
R	C	E	B	İ	R

$(C^{-1} \triangle B)^{-1} = E \triangle x$

$\Rightarrow x = ?$

A) C B) E C) B D) İ E) R

69. $a, b, c \in Z/6$

$20 \equiv a \pmod 6$

$10 \equiv b \pmod 6$

$a + b \equiv c \pmod 6$

$\Rightarrow c = ?$

A) 0 B) 1 C) 2 D) 3 E) 4

70. $4 \cdot x - \frac{1}{4 \cdot x} = 5$

$\Rightarrow x^2 + \frac{1}{256 \cdot x^2} = ?$

A) $\frac{4}{9}$ B) $\frac{27}{16}$ C) $\frac{32}{5}$ D) $\frac{23}{16}$ E) $\frac{32}{7}$

71. $n \in N^+$

$(21000)_n = 576$

$\Rightarrow n = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

72. P(x) polinom *(polynomial)*

$P(x-1) = x - 2x^2 + 3x^3 - 4x^4 + \ldots - 100 \cdot x^{100}$

$P(x+2) \mid x+4$

$-$

$K(x)$

$\Rightarrow K(x) = ?$

A) – 5050 B) – 2500 C) – 1000 D) 2500 E) 5050

73. $a, b \in R$

$ax^2 + bx + c = 0$

S.S. $= \{x_1, x_2\}$

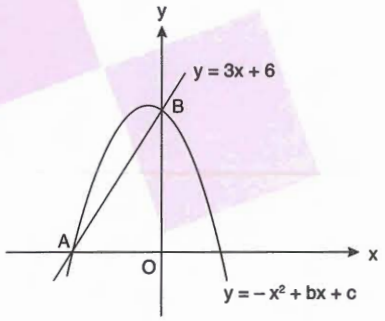
$a + b = c$

$x_1 \cdot x_2 = 10$

$\Rightarrow x_1 + x_2 = ?$

A) – 10 B) – 9 C) 8 D) 9 E) 10

74.

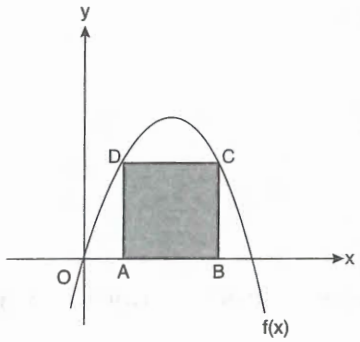


$\Rightarrow b + c = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

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75.



ABCD kare *(square)*

A(2, 0)

A(ABCD) = 4 br^2

⇒ f(8) = ?

A) – 4 B) – 3 C) – 2 D) – 1 E) 0

76. $a < b < 0 < c$

$|a| = |c|$

$\frac{(x+a)\cdot(x-c)}{x-b} \le 0$

⇒ S.S. = ?

A) $(-\infty, b) \cup \{c\}$ B) $(-\infty, b]$ C) $(a, c]$

D) $[c, \infty) \cup \{b\}$ E) $(-\infty, c]$

77. $\alpha + \beta = \frac{\pi}{8}$

⇒ $\cos(5\alpha + 4\beta) = ?$

A) $\cos\alpha$ B) $\sin\alpha$ C) $\cos\beta$ D) $-\sin\beta$ E) $-\sin\alpha$

78. $\sin 70° = x$

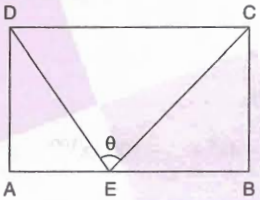
⇒ $\sin 50°$ ifadesinin x cinsinden değeri nedir?

What is the sum of sin50° in terms of x ?

A) $x^2 - 1$ B) $x^2 + 1$ C) $1 - x^2$

D) $2x^2 - 1$ E) $1 - 2x^2$

79



ABCD dikdörtgen

ABCD rectangle

2. |AE| = |AD| = |EB|

⇒ $\tan\theta = ?$

A) $\frac{1}{4}$ B) $\frac{1}{3}$ C) $\frac{1}{2}$ D) 2 E) 3

80 $i^2 = -1$

$z = i - 1$

$\Rightarrow z^{23} = ?$

A) $2^{11} \cdot z$ B) $2^{10} \cdot z$ C) $-2^{11} \cdot \bar{z}$ D) $2^{11} \cdot \bar{z}$ E) $2^{10} \cdot \bar{z}$

81. $z \in C$

$Arg(z^3) + Arg(2 \cdot z) = \frac{4\pi}{5}$

$\Rightarrow Arg(3 \cdot z^5) = ?$

A) $\frac{\pi}{2}$ B) $\frac{3\pi}{5}$ C) $\frac{2\pi}{3}$ D) π E) 2π

82. $\left.\begin{matrix} x = \log 16 \\ y = \log 36 \end{matrix}\right\} \Rightarrow 6^{\frac{x}{y}} + 4^{\frac{y}{x}} = ?$

A) 2 B) 6 C) 10 D) 40 E) 52

83. $\prod_{m=5}^{15} \left(\frac{m^2-4}{m^2-9}\right) = ?$

A) $\frac{56}{57}$ B) $\frac{75}{44}$ C) $\frac{9}{7}$ D) $\frac{60}{53}$ E) $\frac{91}{36}$

84. $k \in N$

$(a_n) = (2, 5, 8, 11, \ldots (3n-1), \ldots)$

$(b_n) = (6, 10, 14, 18, \ldots (4n+2), \ldots)$

$a_k + b_k = 106$

$\Rightarrow k = ?$

A) 23 B) 21 C) 20 D) 18 E) 15

85. $\lim_{x \to -1} \frac{\sqrt{x^2+2x+1} - 1}{|x-2|} = ?$

A) -1 B) $-\frac{1}{3}$ C) 0 D) $\frac{1}{3}$ E) 1

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86. $f: R \to R$

$f(4x-5) = x^4 + x^2 + 4x + 6$

$\Rightarrow f'(3) = ?$

A) 11 B) 15 C) 25 D) 30 E) 40

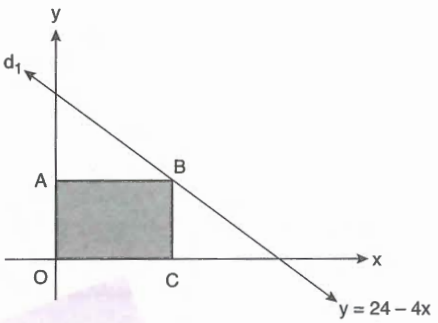
87. $y = e^{-2x} + e^x$

$\Rightarrow \left.\dfrac{d^{15}y}{dx^{15}}\right|_{x=0} = ?$

A) -2^{15} B) $-2^{15}-2$ C) 2^{15}

D) $1-2^{15}$ E) $2^{15}-1$

88.



ABCO dikdörtgen *(rectangle)*

$B \in d_1$

$\Rightarrow \max[A(ABCO)] = ?$

A) 45 B) 40 C) 36 D) 30 E) 28

89. $\int \sqrt{e^x+1} \cdot e^x \cdot dx = ?$

A) $\dfrac{2}{3} \cdot e^{\frac{3x}{2}} + c$

B) $\dfrac{1}{2} \cdot (e^x+1)^{\frac{3}{2}} + c$

C) $\dfrac{2}{3} \cdot (e^x+1)^{\frac{3}{2}} + c$

D) $\dfrac{1}{3} \cdot (e^x+1)^2 + c$

E) $\dfrac{(e^x+1)^2}{2} + c$

90. $\int (x \cdot f'(x) + f(x)) \cdot (x \cdot f(x) + 1)\,dx = ?$

A) $x \cdot f(x) + c$

B) $x \cdot f'(x) + c$

C) $\frac{(x \cdot f(x) + 1)^2}{2} + c$

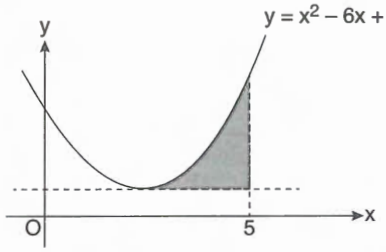
D) $\frac{(x \cdot f'(x) + f(x))^2}{2} + c$

E) $x + f(x) + c$

91. $\int_{-1}^{0} \left| |x^2 - 1| - 1 \right| dx = ?$

A) 2 B) $\frac{5}{3}$ C) $\frac{1}{3}$ D) $-\frac{5}{3}$ E) -2

92.



Taralı bölgenin alanı kaç br^2 dir.

How many $unit^2$ is the area of the shaded sector?

A) 18 B) 16 C) 8 D) $\frac{16}{3}$ E) $\frac{8}{3}$

93. I Birim matris *(I Identitly matrix)*

$A = \begin{bmatrix} 2015 & 2016 \\ 0 & -2015 \end{bmatrix}$

$\Rightarrow A^{2016} = ?$

A) $2015 \cdot A^{2016}$ B) $2015^{2016} \cdot A$

C) $2015^{1008} \cdot I$ D) $2015^{2016} \cdot I$

E) $2015 \cdot I$

94. $x, y \in R$

$A = \begin{bmatrix} x & -1 \\ -2 & y \end{bmatrix}$

$A^{-1} + A = 0$

$\Rightarrow \det(A^3) = ?$

A) 5 B) 4 C) 3 D) 2 E) 1

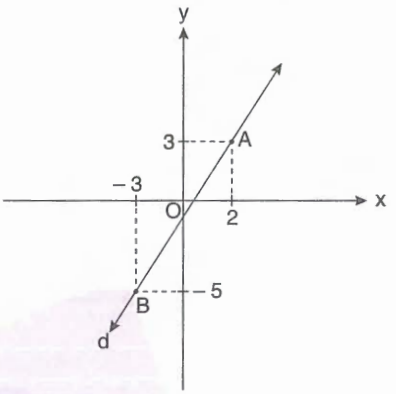
95. $A = \{2, 4, 5, 8, 9\}$

A kümesinin elemanları kullanılarak üç basamaklı kaç farklı çift doğal sayı yazılır?

How many different 3 digit numbers can be written by using the elements of set A providing that the numbers are even naturel numbers?

A) 25 B) 30 C) 75 D) 100 E) 125

96.



d: $ax + by + c = 0$

A(2, 3)

B(– 3, – 5)

$\Rightarrow d = ?$

A) $5y - 8x + 1 = 0$ B) $8y - 5x + 1 = 0$

C) $8x - 5y + 1 = 0$ D) $5y + 8x - 1 = 0$

E) $5x - 8y + 1 = 0$

97. $\vec{A} = (2, -3, 4)$

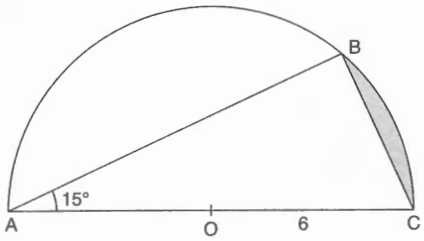
$\vec{B} = (a, 6, 5)$

$\vec{A} \perp \vec{B}$

$\Rightarrow A = ?$

A) 2 B) 1 C) 0 D) – 1 E) – 2

98.



O merkezli yarım çember *(A semi circle with a center O)*

$m(\widehat{BAC}) = 15°$

$|OC| = 6$ br

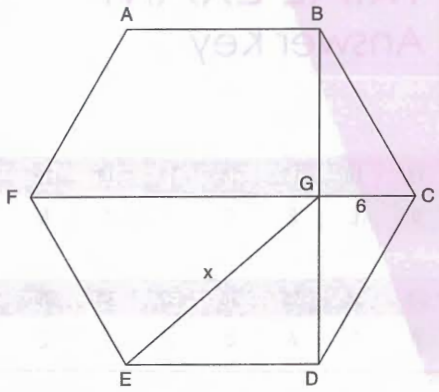
$\Rightarrow$ Taralı bölgenin alanı kaç br^2 dir ?

How many unit^2 is the area of the shaded sector?

A) $3\pi - 9$ B) $3\pi - 36$ C) $3\pi - 18$

D) $9 - 3\pi$ E) $9 + 3\pi$

99.



ABCDEF düzgün altıgen *(regular hexagon)*

$|GC| = 6$ br

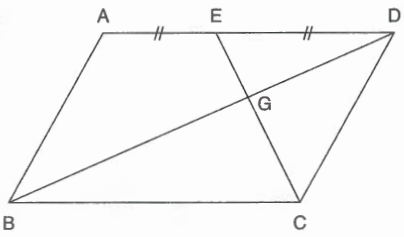
$|GE| = x$

$\Rightarrow x = ?$

A) $6\sqrt{7}$ B) $6\sqrt{11}$ C) 12

D) 18 E) $6\sqrt{13}$

100.



ABCD paralelkenar *(paralelogram)*

$|AE| = |ED|$

$|BD| = 12$ br

$\Rightarrow |GD| = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

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DENEME SINAVI 23 TRIAL EXAM

Yanıt Anahtarı | Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	B	C	A	A	D	C	B	D	D	E	A	D	E	E	C	C	B	B	D

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	C	C	B	D	C	E	D	D	E	C	B	B	C	A	B	B	C	E	B

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
B	E	E	C	D	E	D	D	C	A	C	C	E	C	C	D	A	C	A	C

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
B	E	C	B	B	B	E	A	A	B	B	A	B	B	A	A	E	D	E	D

81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
D	C	E	E	B	A	D	C	C	C	C	E	D	C	C	A	D	A	A	C

DENEME SINAVI 24

TRIAL EXAM 24

1.

▲❑☆■●	98782
○☆■▲❑	38721
☆■○▲●	72193
●❑☆■○	98723
▲❑☆❑■	17298

⇒ ●❑☆■○ = ?

A) 98782 B) 38721 C) 72193

D) 98723 E) 17298

2.

SADE	➔ ➘ ↙ ←
DESA	← ➔ ← ↙
ASAD	➔ ← ↙ ➘
DESE	↙ ➘ ➔ ←
SEDA	↙ ➘ ➔ ➘

⇒ DESA = ?

A) ➔ ➘ ↙ ← B) ← ➔ ← ↙ C) ➔ ← ↙ ➘

D) ↙ ➘ ➔ ← E) ↙ ➘ ➔ ➘

3.

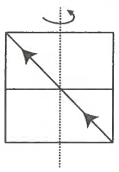
MASAL	91347
METAL	31946
SELAM	34746
TEMAS	71643
SALEM	74613

⇒ SELAM = ?

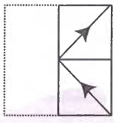
A) 91347 B) 31946 C) 34746

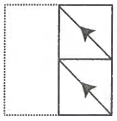
D) 71643 E) 74613

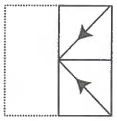
4.

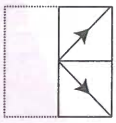


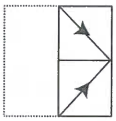
= ?

A) 

B) 

C) 

D) 

E) 

5.

ASA	313
KEK	482
SAS	575
LOR	131
EKE	757

⇒ LOR = ?

A) 313 B) 482 C) 575

D) 131 E) 757

6.

$$\begin{array}{r} A\,6\,A\,7 \\ +\;\;7\,A\,6\,A \\ \hline 1\,4\,B\,B\,B \end{array}$$

⇒ A + B = ?

A) 10 B) 12 C) 14 D) 16 E) 18

7.

$$\begin{array}{r} K \\ +\ L \\ \hline 15 \end{array} \quad \begin{array}{r} L \\ +\ M \\ \hline 13 \end{array} \quad \begin{array}{r} M \\ +\ N \\ \hline 11 \end{array} \quad \begin{array}{r} K \\ +\ M \\ \hline 12 \end{array} \qquad N = ?$$

A) 5 B) 6 C) 7 D) 8 E) 9

8.

$$\begin{array}{r} KLL \\ \times\ \ 25 \\ \hline \cdots\cdot \\ +\ \cdots \\ \hline 8600 \end{array} \qquad \begin{array}{r} KL \\ +\ LK \\ \hline ? \end{array}$$

A) 55 B) 66 C) 77 D) 88 E) 99

9.

$$\begin{array}{r} KLM \\ KLM \\ KLM \\ KLM \\ +\ KLM \\ \hline 1895 \end{array} \qquad \Rightarrow K + L + M = ?$$

A) 14 B) 15 C) 17 D) 19 E) 20

10.

$$\begin{array}{r} K \\ -\ L \\ \hline M \end{array} \qquad \begin{array}{r} K \\ \times\ K \\ \hline LM \end{array} \qquad \Rightarrow K + L + M = ?$$

A) 16 B) 18 C) 20 D) 22 E) 24

11. I. $4 \blacktriangle 8 = 36$

II. $6 \blacktriangle 6 = 42$

III. $4 \blacktriangle 9 = 40$

IV. $5 \blacktriangle 6 = ?$

Yukarıdaki ilk üç eşitlik ▲ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ▲ is unchanged. What does the question mark stand for in the fourth equation?

A) 28 B) 32 C) 35 D) 40 E) 45

12. I. $8 \bullet 2 = 2$

II. $14 \bullet 6 = 4$

III. $11 \bullet 4 = 3$

IV. $20 \bullet 15 = ?$

Yukarıdaki ilk üç eşitlik ● işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ● is unchanged. What does the question mark stand for in the fourth equation?

A) 5 B) 6 C) 7 D) 8 E) 9

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13. I. $32 \blacksquare 7 = 5$

II. $64 \blacksquare 15 = 7$

III. $36 \blacksquare 20 = 4$

IV. $129 \blacksquare 48 = ?$

Yukarıdaki ilk üç eşitlik ■ işaretinin görevini belirlemektedir. Buna göre, dördüncü eşitlikteki soru işaretinin yerine kaç gelmelidir?

In the equations above, the function of ■ is unchanged. What does the question mark stand for in the fourth equation?

A) 6 B) 8 C) 9 D) 10 E) 11

14. I. $a \bullet b = \frac{a+b}{a-b}$

II. $a * b = \frac{a}{b}$

III. $(6 \bullet 3) * (16 \bullet 8) = ?$

A) $\frac{2}{3}$ B) $\frac{3}{4}$ C) $\frac{3}{2}$ D) $\frac{4}{3}$ E) 1

15. I. $(5 \bullet 4) \blacksquare (10 \blacktriangle 1) = 81$

II. $(8 \blacksquare 2) \bullet (9 \blacktriangle 5) = 20$

III. $(4 \blacksquare 6) \blacktriangle (6 \bullet 8) = 10$

IV. $(3 \bullet 2) \blacksquare (5 \blacktriangle 3) = ?$

A) 10 B) 14 C) 18 D) 20 E) 24

16.

+	a	b	c
a	c	3 · c	
b			21

$\Rightarrow a = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belirli birer sayının yerine kullanılmıştır. Buna göre a kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of a?

A) 2 B) 3 C) 5 D) 6 E) 15

17.

+	a	b	c
a		11	13
b			12

x	a	b	c
a			x
b	y		

$\Rightarrow x + y = ?$

Yukarıdaki çarpma ve toplama tablolarında a, b ve c harfleri belirli birer sayının yerine kullanılmıştır. Buna göre x+y kaçtır?

In the multiplication and summation tables above, the letters a, b ve c each stand for a specific number. What is the value of x+y?

A) 52 B) 64 C) 72 D) 82 E) 94

18.

+	a	b	c
a	c	d	b
b		e	40
c			d

$\Rightarrow d + e = ?$

Yukarıdaki toplama tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre d+e kaçtır?

In the summation table above, the letters a, b and c each stand for a specific number. What is the value of d+e?

A) 60 B) 64 C) 70 D) 76 E) 80

19.

x	a	b	c
a		32	
b			72
c	36		

$\Rightarrow a + b + c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a+b+c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a+b+c?

A) 17 B) 19 C) 21 D) 23 E) 25

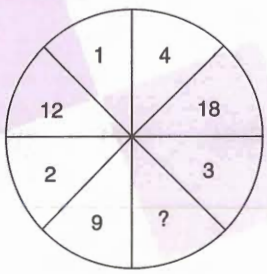
20. I. $\boxed{\boxed{2}} + \boxed{\boxed{2}} + \boxed{2} = 8 + 4 + 2 = 14$

II. $\boxed{\boxed{4}} + \boxed{\boxed{4}} + \boxed{4} = 84$

III. $\boxed{\boxed{3}} + \boxed{\boxed{3}} + \boxed{3} = ?$

A) 28 B) 34 C) 39 D) 42 E) 48

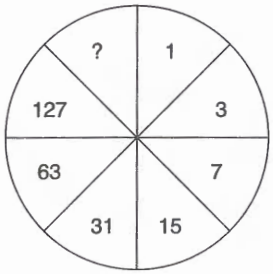
21.



A) 10 B) 14 C) 24 D) 36 E) 42

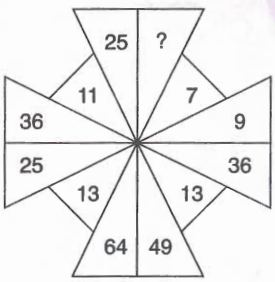
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22.



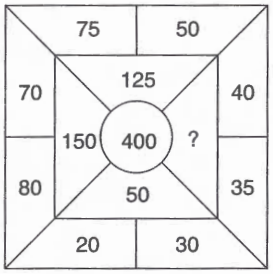
A) 214 B) 228 C) 232 D) 255 E) 264

23.



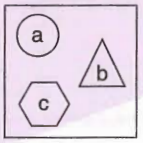
A) 2 B) 16 C) 64 D) 24 E) 32

24.

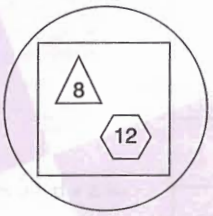


A) 50 B) 60 C) 65 D) 70 E) 75

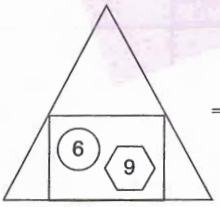
25.

I. 

$\Rightarrow a^2 \cdot 3b \cdot \frac{1}{c} = \frac{3a^2 \cdot b}{c}$

II. 

$\Rightarrow 4$

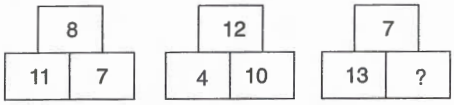
III. 

$\Rightarrow ?$

A) 8 B) 12 C) 16 D) 20 E) 24

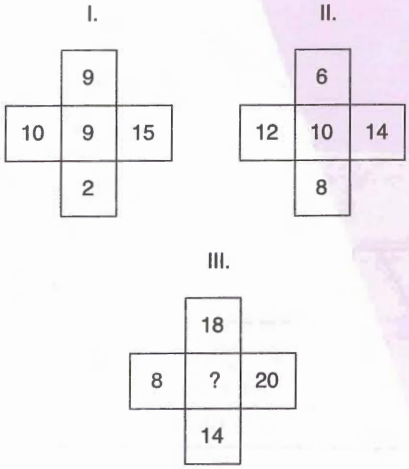
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26.



A) 3 B) 6 C) 8 D) 9 E) 11

27.

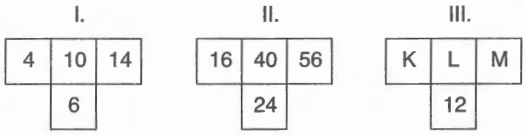


I. ve II. şekilde belirlenen kurala göre, III. şekildeki soru işaretinin yerine hangi sayı gelmelidir?

Given the relationship established in I and II which number does the question mark stand for in III?

A) 8 B) 11 C) 13 D) 15 E) 17

28.



K = ? L = ? M = ?

I. ve II. şekilde belirlenen kurala göre, III. şekildeki K, L, M harflerinin yerine hangi sayı gelmelidir?

Given the relationship established in I and II, which numbers do K, L and M stand for in III?

	K	L	M
A)	6	15	30
B)	8	20	24
C)	9	20	28
D)	8	20	28
E)	9	24	30

29.



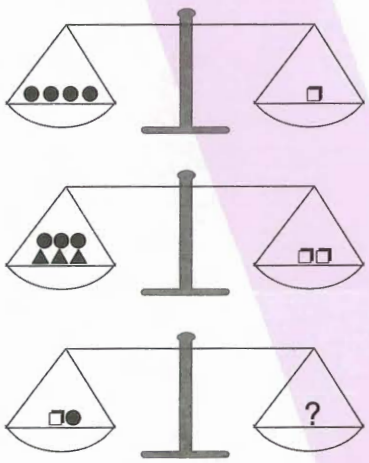
A) 22 B) 26 C) 27 D) 30 E) 34

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30. I : 9 12 17 24 33
II : 9 24 51 ? 165

A) 72 B) 96 C) 120 D) 150 E) 155

31.



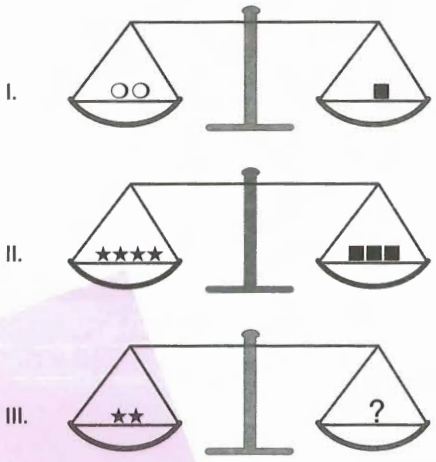
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ▲▲ B) ▲▲▲ C) ●▲▲

D)●●▲ E) ●●●

32.



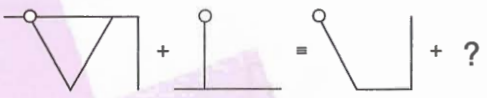
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In accordance with I and II which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ○■ B) ○○ C) ■■

D) ○■■ E) ○○■

33.

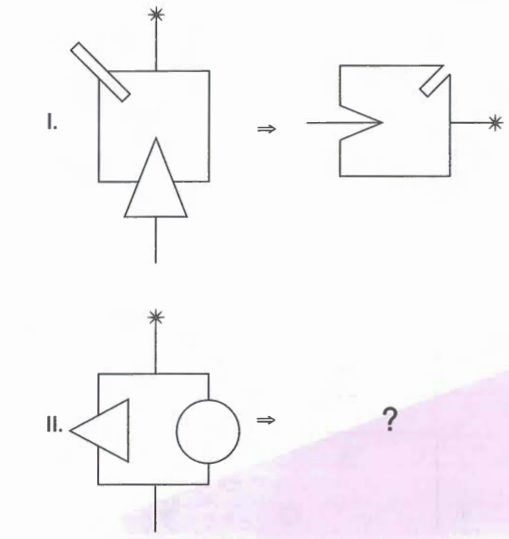


A) B)

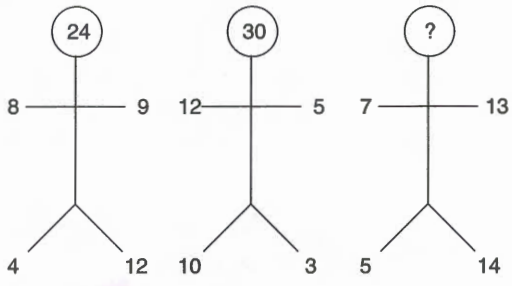
C) D)

E)

34.

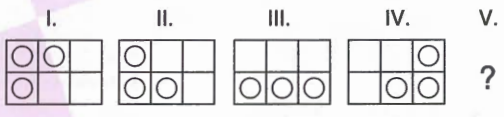


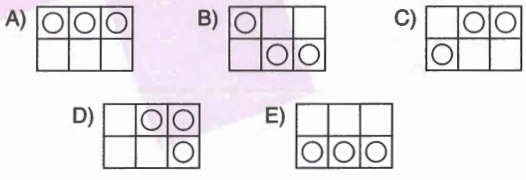
35.



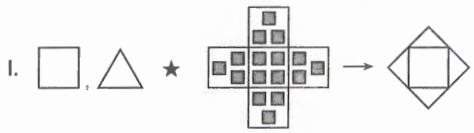
A) 13 B) 19 C) 21 D) 34 E) 43

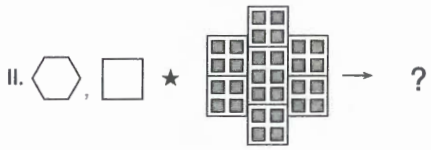
36.





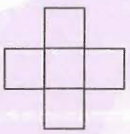
37.

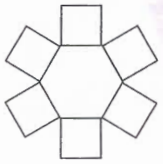
I. 

II. 

A) 

B) 

C) 

D) 

E) 

38. $\blacktriangle + \bigstar + \square = 8 + 9 + 2$

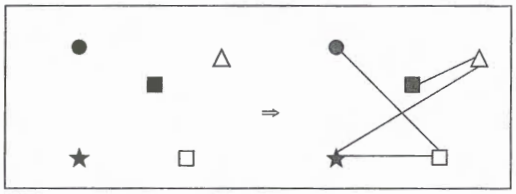
$\square + \blacktriangle + \bullet = 9 + 4 + 8$

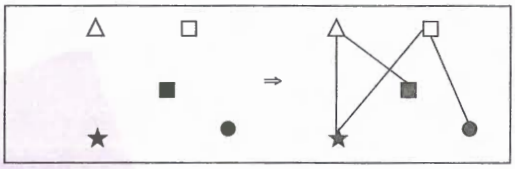
$\bigstar + \bullet + \square = 4 + 2 + 8$

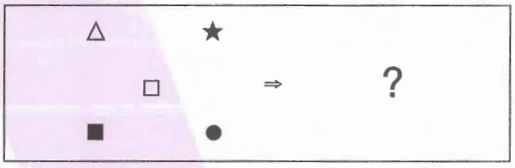
$\Rightarrow \dfrac{\blacktriangle + \bigstar}{\bullet} = ?$

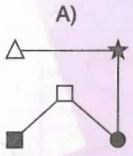
A) $\frac{17}{2}$ B) $\frac{10}{9}$ C) $\frac{11}{4}$ D) $\frac{13}{2}$ E) 6

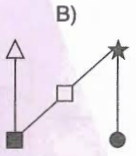
39.

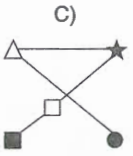
I. 

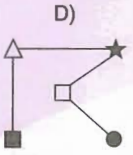
II. 

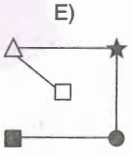
III. 

A) 

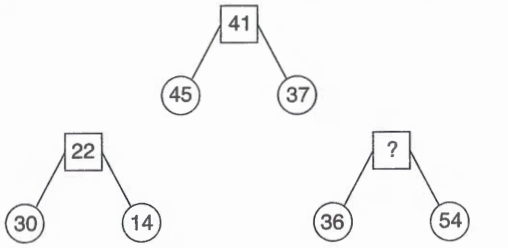
B) 

C) 

D) 

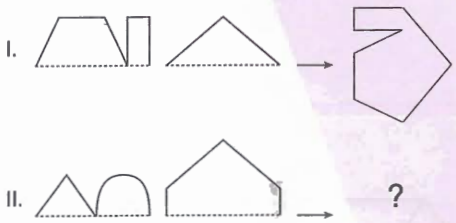
E) 

40.

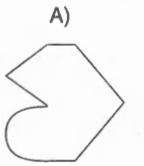


A) 35 B) 38 C) 42 D) 45 E) 48

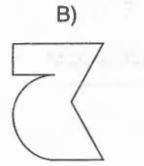
41.



A)



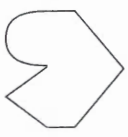
B)



C)



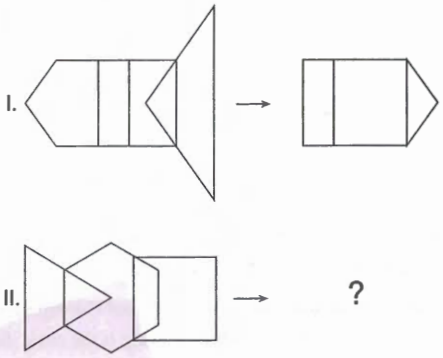
D)



E)



42.



A)



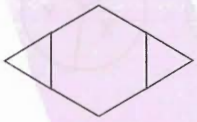
B)



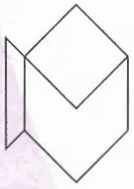
C)



D)

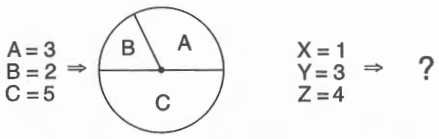


E)



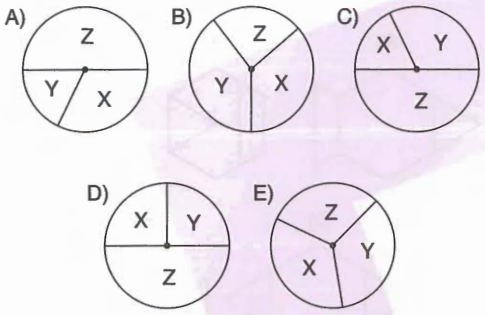
43.

I. II.



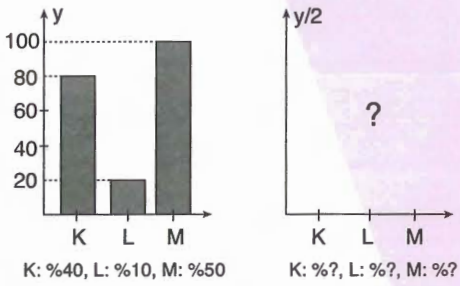
A, B ve C değerleri arasındaki ilişki I. daire grafikte gösterilmiştir. X, Y ve Z değerleri arasındaki ilişkiyi gösteren II. daire grafik aşağıdakilerden hangisidir?

The relationship between the values A, B and C is represented in the circle diagram I. Which of the following is the circle diagram II that represent the relationship between the values X, Y and Z?



44.

I. II.



I.

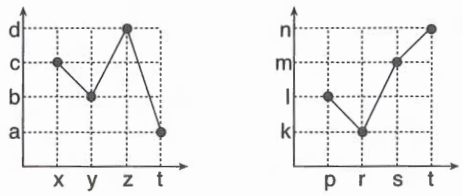
I. grafiğe göre K, L, M'nin oranları sırasıyla, %40, %10 ve %50'dir. II. grafiğe göre, K, L, M'nin oranları % kaçtır?

The ratios of K, L, M are %40, %10 and %50 respectively, in graph I. What are the ratios of K, L, M in graph II?

	K (%)	L (%)	M (%)
A)	35	15	50
B)	20	30	50
C)	10	40	50
D)	20	5	25
E)	40	10	50

45.

I. II.



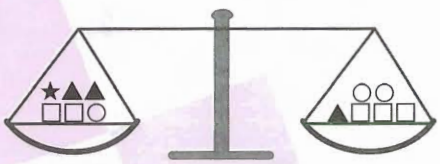
	I	II
	$P_1(x, c)$	$P_1(?, ?)$
	$P_2(y, b)$	$P_2(?, ?)$
	$P_3(z, d)$	$P_3(?, ?)$
	$P_4(t, a)$	$P_4(?, ?)$

I'de belirtilen ilişkiye göre, II'deki P_1, P_2, P_3 ve P_4 noktalarının koordinatları aşağıdakilerden hangisinde verilmiştir?

Given the relationship established in I, which of the following represents the coordinates of points P_1, P_2, P_3 and P_4 in II?

	P_1	P_2	P_3	P_4
A)	(t, n)	(s, m)	(p, l)	(r, k)
B)	(s, m)	(r, k)	(p, l)	(t, n)
C)	(p, l)	(r, k)	(t, n)	(s, m)
D)	(r, k)	(s, m)	(t, n)	(p, l)
E)	(p, l)	(r, k)	(s, m)	(t, n)

46.



Yukarıdaki terazi dengededir. Aşağıdakilerden hangisi doğrudur?

The scale above is balanced. Which of the following is true?

A) ▲+★= ○+□

B) ▲+□= ○+★

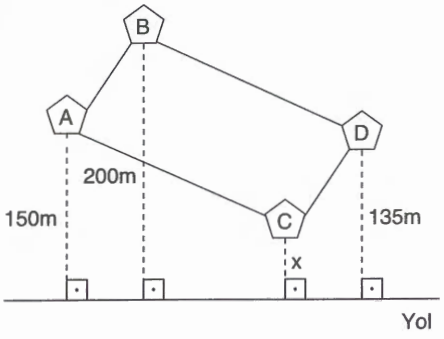
C) ★+□= ▲+○

D) ○+★= ▲+2·□

E) ★+ 2·□= ▲+○

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47.



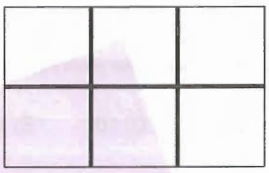
Şekildeki evler bir paralelkenarın köşelerine yerleşecek şekilde konumlanmıştır. A nın yola uzaklığı 150 m,B nin yola uzaklığı 200 m, D nin yola uzaklığı 135 m olduguna göre C nin yola uzaklığı kaç metredir?

All the houses on the figure are put on each corner of a parallelogram if the distance between A and the road is 150 m, the distance between B and the road is 200 m, the distance between D and the road is 135 m. What is the distance between C and the road?

A) 70 B) 80 C) 85 D) 100 E) 110

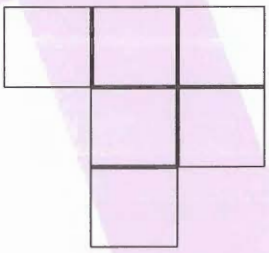
1x1 boyutlu kareler bir düzlem üzerinde kenarları boyunca kesiştirilerek aşağıdaki şekiller oluşturuluyor. Kesiştirilen her karenin kenar sayısına "kesişim sayısı" adı veriliyor

The following figures below are formed by intersecting squares with 1x1 on a plane. The number of sides of the intersected squares is called "intersection side number"



⇒ kenar kesişim sayısı = 7

intersection side number = 7



⇒ kenar kesişim sayısı = 6

intersection side number = 6



⇒ kenar kesişim sayısı = 6

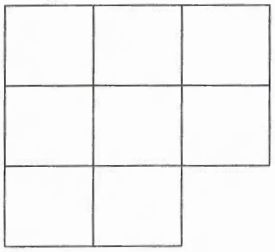
intersection side number = 6

48 – 51 soruları yukarıdaki bilgilere göre cevaplayınız.
Answer the questions 48 – 51 according to the information above.

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48.



Yukarıdaki şekilde kenar kesişim sayısı kaçtır?

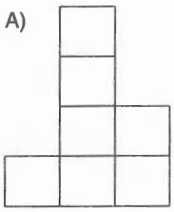
What is the number of side intersection in the given figure above?

A) 7 B) 8 C) 9 D) 10 E) 11

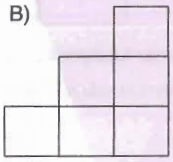
49. Aşağıdaki şekillerden hangisinde kullanılan kare sayısı, kenar kesişim sayısına eşit değildir?

In which of the following figures given below the number of squares is not equal to the number of sides which intersect?

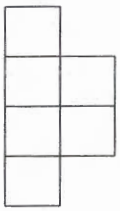
A)



B)



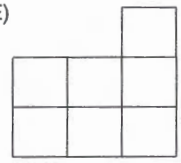
C)



D)



E)



50. 10 tane kare kullanılarak oluşturulacak şekillerin kenar kesişim sayısı en çok kaç olabilir?

What is the max number of sides which intersect in a shape which will be formed by using 10 squares?

A) 10 B) 11 C) 12 D) 13 E) 14

51. 5 tane kare kullanılarak, kenar kesişim sayısı 5 olan şekiller oluşturuluyor. Bu şekillerin çevre uzunluğu kaç birimdir?

Using 5 squares shapes will be formed with the side intersection number is 5. What is the perimeter of the of these shapes?

A) 6 B) 8 C) 10 D) $\frac{100}{3}$ E) $\frac{200}{3}$

52.

13	11	10
9	7	6
8	14	13

İki katlamayla oluşturulan yukarıdaki şekil , aşagıdakilerden hangisinden elde edilmiş olamaz?

Which of the following is not the original form of the shape above which is formed by folding 2 times?

A)

4	2	10	8
3	4	1	2
1	8	7	6
3	5	14	13

B)

13	11	2	8
9	7	1	5
1	9	3	6
7	5	4	2

C)

5	7	7
8	4	3
9	7	6
6	5	4
2	9	9

D)

12	7	6
1	4	4
9	7	6
4	6	11
4	8	2

E)

2	11	11	7	3
1	8	7	4	2
3	5	14	5	8

53.

	p	r	s	t	v
a					
b					
c					
d					
e					

p sütunu r sütunun üzerine, sonra, e satırı d satırının üzerine, sonrada d satırı c satırının üzerine katlanıyor. En son şekilde kaç kutu vardır?

First, p column is folded ever r column, then e raw is folded over draw, lastly d raw is folded over c raw. How many squares are there in the last position?

A) 9 B) 12 C) 16 D) 18 E) 20

54.

A ↓

1	4	8	2
6	3	5	4
3	8	2	6

→ B

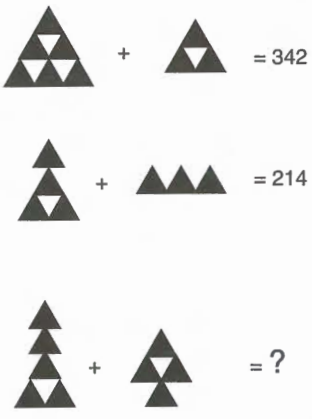
A kutusundan giriş yapan bir çocuk geçtiği her kutudaki puanları toplayıp B kutusundan çıkacaktır. Aşağı ve sağa dogru hareket etmek zorunda olan çocuk en fazla kaç puan toplar?

A child who enters from square A will go out from square B and meanwhile he will add all the points he passed by. As he must more only upwards and downwards what is the max number of points he can get?

A) 26 B) 28 C) 25 D) 29 E) 30

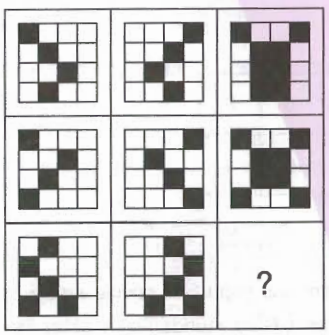
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55.



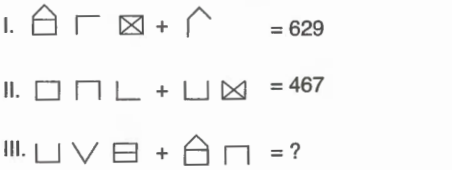
A) 2232 B) 232 C) 343
D) 442 E) 342

56.



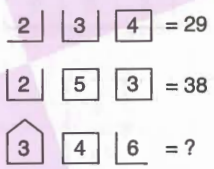
A) 
B) 
C) 
D) 
E) 

57.



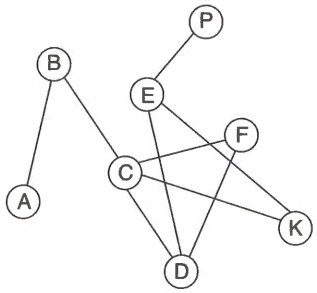
A) 248 B) 345 C) 388
D) 442 E) 342

58.

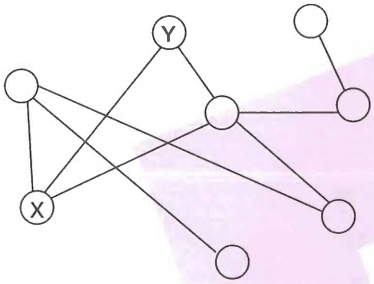


A) 22 B) 62 C) 43 D) 48 E) 60

59.



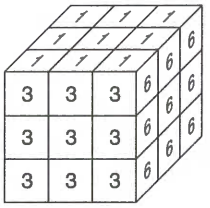
Şekil I
Figure I

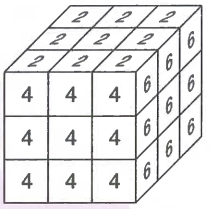


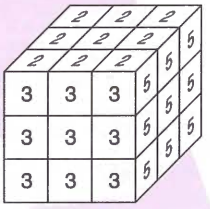
Şekil II
Figure II

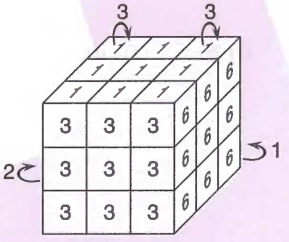
	X	Y
A)	E	K
B)	D	B
C)	D	F
D)	K	F
E)	C	K

60.









Zeka küpünün tüm yüzeylerinin görünümü verilmiştir.

The display of all the sides of the magic cube is given.

Zeka küpü numara sırasına göre ok yönlerinde numaraları kadar döndürüldüğünde şeklin üst yüzü nasıl görünür?

What will be the display of the upper side of the figure if the magic cube is rotated according to the order of numbers in the arrow direction times the given number?

A)

6	1	6
3	1	3
4	1	4

B)

6	1	6
2	1	2
4	1	4

C)

3	1	3
5	1	5
4	1	4

D)

5	1	5
4	1	4
3	1	3

E)

3	1	3
4	1	4
5	1	5

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61. $A = (-2) - (-7)$

$B = -2 + [(+4) + (-19)]$

$\Rightarrow 2 \cdot A - B = ?$

A) -31 B) -27 C) 0 D) 27 E) 31

62. $a = \dfrac{(8,7)^2 - (1,3)^2}{(4,3)^2 - (3,1)^2}$

$\Rightarrow 3a = ?$

A) 25 B) 30 C) 75 D) 100 E) 125

63. $\dfrac{5}{4-\sqrt{11}} - \dfrac{4}{\sqrt{11}-\sqrt{7}} - \dfrac{2}{3+\sqrt{7}} = ?$

A) 1 B) 2 C) $\sqrt{3}$ D) $\sqrt{5}$ E) $\sqrt{7}$

64. $A \subset B$ $B \cap C = \emptyset$ $n(B) = 5$ $n(C) = 3$

$\Rightarrow n(A \cup B \cup C) = ?$

A) 2 B) 3 C) 5 D) 7 E) 8

65. $5x + 6y + 7z = 27$

$x + 2y + 3z = 11$

$\Rightarrow x + y + z = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

66. $P(x-1) = 2x^2 - x - 4$

$\Rightarrow P(x+2) = ?$

A) $x^2 + 12x - 2$ B) $x^2 + 12x + 2$

C) $2x^2 - 11x - 2$ D) $2x^2 - 11x + 11$

E) $2x^2 + 11x + 11$

67. $\lim_{x\to -1}\left[f^{-1}(3x+1)\right]=2$

$\Rightarrow \lim_{x\to 0}\left[f(11x+2)\right]=?$

A) -2 B) -1 C) 0 D) 1 E) 2

68. $\lim_{x\to -4}\sqrt{25-x^2}=?$

A) 3 B) $\sqrt{15}$ C) 5 D) $\sqrt{41}$ E) 9

69. $\int (3x^2+4x)dx=?$

A) $3x^3+2x^2+c$ B) x^3+2x^2+c
C) x^3+4x^2+c D) $6x^3+4x^2+c$
E) $6x+4+c$

70. $x, y, z \in R$

$A=\begin{bmatrix} x+y & 4 \\ y-x & z \end{bmatrix}$ $B=\begin{bmatrix} 5 & 4 \\ 1 & 3 \end{bmatrix}$

$A = B$

$\Rightarrow x+y+z=?$

A) 8 B) 7 C) 6 D) 5 E) 4

71. $\dfrac{2:\frac{3}{2}+1}{3-\frac{4}{3}:2}=?$

A) -2 B) -1 C) 0 D) 1 E) 2

72. $\dfrac{6}{1+\dfrac{3}{1+\dfrac{2}{x+1}}}=-3$

$\Rightarrow x=?$

A) 1 B) -1 C) -2 D) -3 E) -4

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73. $x > 0$

$$\frac{xy}{4} = \frac{yz}{-3} = \frac{xz}{-5}$$

$\Rightarrow \quad ? < ? < ? \quad x,y,z$

A) $x < z < y$ B) $x < y < z$ C) $z < x < y$

D) $z < y < x$ E) $y < x < z$

74. $\left.\begin{array}{l} y - 2x = 3 \\ -3 < y < 5 \end{array}\right\} \Rightarrow ? < x < ?$

A) $-3 < x < 3$ B) $-2 < x < 1$ C) $-3 < x < 1$

D) $-3 < x < 5$ E) $-3 < x < 4$

75. $\dfrac{5^{n+1} + 3 \cdot 5^{n-2}}{5^{n-2} + 3 \cdot 5^{n-1}} = ?$

A) $\frac{8}{25}$ B) 4 C) 8 D) 16 E) 32

76. $\sqrt[4]{3360 \cdot 3336 - 3363 \cdot 3333} = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

77. $\left(\frac{2}{a} - \frac{1}{b}\right)\left(\frac{2}{a} + \frac{1}{b}\right) + \left(\frac{2}{b} + \frac{1}{a}\right)\left(\frac{1}{a} - \frac{2}{b}\right) = ?$

A) $3\left(\frac{1}{a^2} + \frac{1}{b^2}\right)$ B) $5\left(\frac{1}{a^2} - \frac{1}{b^2}\right)$

C) $3\left(\frac{1}{a^2} - \frac{1}{b^2}\right)$ D) $5\left(\frac{1}{a^2} + \frac{1}{b^2}\right)$

E) $3\left(\frac{1}{a} - \frac{1}{b}\right)^2$

78. $\left.\begin{array}{l} x + 5y = 18 \\ y - 3z = 2 \\ 3x + z = 4 \end{array}\right\} \Rightarrow x + y + z = ?$

A) 2 B) 3 C) 5 D) 8 E) 10

79. $f(4x+2) = \dfrac{x^2-x+5}{x^2-1}$

$\Rightarrow \quad f(2) = ?$

A) -10 B) -5 C) -1 D) 5 E) 10

80. $f(x) = x^3 + 5x^2 - 7x + 3$
$g(x) = 2x - 6$
$\Rightarrow (fog)(3) = ?$

A) 0 B) 2 C) 3 D) 5 E) 7

81. $P(x) = ax^2 - 2x + c - 1$
$Q(x) = 2x^2 + 4 + bx$
$P(x) = Q(x)$

$\Rightarrow a + b + c = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

82. $x^2 - 6x + 4m + 1 = 0$

S.S. $= \{x_1, x_2\}$

$x_1 - \dfrac{1}{x_2} = x_2 - \dfrac{1}{x_1}$

$\Rightarrow m = ?$

A) 0 B) 1 C) 2 D) 3 E) 4

83. $(a-1)x^2 - (a-2)x + 1 - a = 0$

S.S. $= \{x_1, x_2\}$

$\dfrac{1}{x_1} + \dfrac{1}{x_2} = -\dfrac{3}{2}$

$\Rightarrow a = ?$

A) -7 B) $-\dfrac{3}{2}$ C) -1 D) $-\dfrac{1}{2}$ E) $\dfrac{7}{5}$

84. $x = 4$

$y = 2$

$\Rightarrow x^5 - 5x^4y + 10x^3y^2 - 10x^2y^3 + 5xy^4 - y^5 = ?$

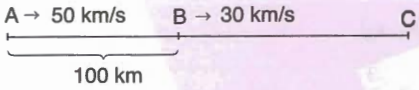
A) 16 B) 32 C) 64 D) 128 E) 256

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85. $\dfrac{\sin(13x)+\sin(7x)+\sin x}{\cos(13x)+\cos(7x)+\cos x} = ?$

A) cot(7x) B) tan(7x) C) 1 D) sin(7x) E) cos(7x)

86.



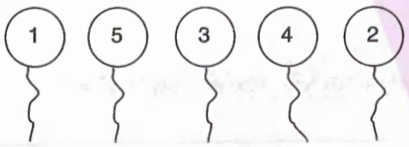
Aralarında 100 km mesafe olan sırasıyla 50 km/s, 30 km/s hızla hareket eden iki araç C noktasında karşılaşıyor.

The velocities of A and B vehicles are 50 km/h and 30 km/h respectively. What is the distance between B and C, if they meet on the point C.

$\Rightarrow |BC| = ?$

A) 50 B) 75 C) 100 D) 120 E) 150

87.



Balonları hedef alan bir çocuk 5 atıştan 2 balonu vurdugu bilindigine göre vurdugu balonların üzerindeki sayıların toplamının 6 dan büyük olma olasılığı nedir?

If a child who aims 5 balloons hit 2 balloons what is the probability of getting the total number bigger than 6 if he adds the numbers on the balloons that he hit?

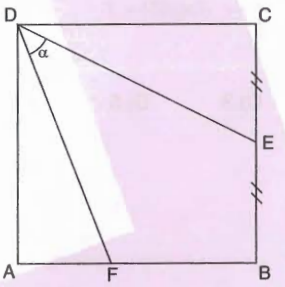
A) $\frac{3}{10}$ B) $\frac{2}{5}$ C) $\frac{4}{5}$ D) $\frac{7}{10}$ E) $\frac{3}{5}$

88. Ustasının 2 günde bitirebildigi bir işi çırağı 3 günde bitirebilmektedir.İkisinin 20 günde yaptıgı bir işi çırak kaç günde yapar?

A work which can be done in 2 days by a master is done in 3 days by an apprentic. What will be the number of days for a work done by apprentice if it can be done in 20 days if both of them work together?

A) 20 B) 30 C) 50 D) $\frac{100}{3}$ E) $\frac{200}{3}$

89.



ABCD kare
(square)
$|AB| = 6$ br
$|FB| = 2|AF|$
$m(\widehat{FDE}) = \alpha$
$\Rightarrow \alpha = ?$

A) 30° B) 40° C) 45° D) 50° E) 60°

90. $\dfrac{\sin 80° + \sin 20°}{\cos 70° + \cos 10°} = ?$

A) $-\sqrt{3}$ B) $-2\sqrt{3}$ C) $-\frac{\sqrt{3}}{3}$ D) 0 E) 1

91. $\dfrac{1+\cos x+\cos(2x)}{\sin x+\sin(2x)} = ?$

A) cotx B) tanx C) 1 + tanx D) 1 + cotx E) 1 + 2cosx

92. $\log_2 3 = a$

$\Rightarrow \log_{18} 12 = ?$

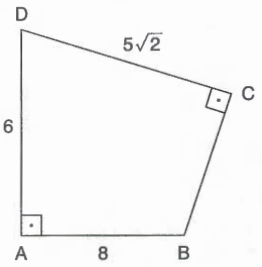
A) $\dfrac{a+1}{a+2}$ B) $\dfrac{2a+1}{a+2}$ C) $\dfrac{a+2}{2a-1}$ D) $\dfrac{a+1}{2a-1}$ E) $\dfrac{a+2}{2a+1}$

93. $\log 32 = 10 \cdot \log_x 2$

$\Rightarrow x = ?$

A) 100 B) 90 C) 50 D) 40 E) 10

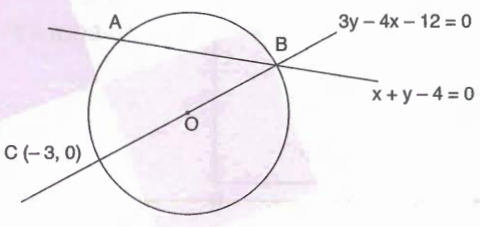
94.



$[AD] \perp [AB]$
$[DC] \perp [BC]$
$|DA| = 6$ br
$|AB| = 8$ br
$|DC| = 5\sqrt{2}$ br
$\Rightarrow A(ABCD) = ?$

A) 36 B) 42 C) 49 D) 64 E) 70

95.



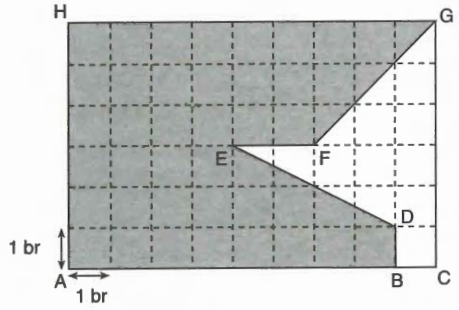
O, Merkez (*center*) r, Yarıçap (*radius*)

$\Rightarrow r = ?$

A) 2,5 B) 3 C) 3,5 D) 4 E) 5

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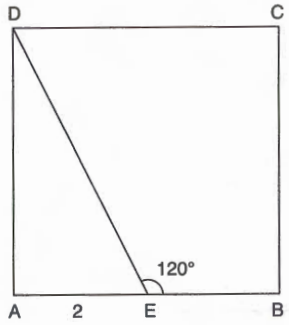
96.



⇒ A(ABDEFGH) = ?

A) $\frac{65}{2}$ B) $\frac{75}{4}$ C) $\frac{75}{2}$ D) $\frac{85}{2}$ E) $\frac{95}{2}$

97.



ABCD kare *(square)*

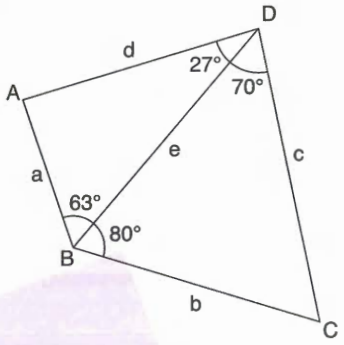
$|AE| = 2$ cm

$m(\widehat{BED}) = 120°$

⇒ A(ABCD) = ?

A) 6 B) 8 C) 12 D) 16 E) 24

98.



$m(\widehat{ADB}) = 27°$

$m(\widehat{ABD}) = 63°$

$m(\widehat{BDC}) = 70°$

$m(\widehat{DBC}) = 80°$

Aşağıdakilerden hangisi doğrudur?

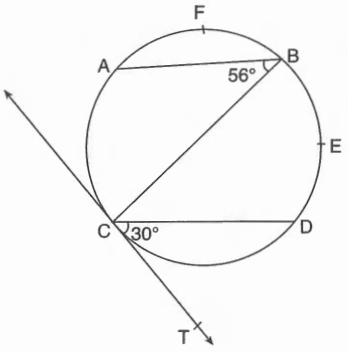
Which one of the following is correct?

A) $a < d < e < b < c$ B) $a < d < e < c < b$

C) $c < b < e < d < a$ D) $c < b < e < a < d$

E) $c < b < d < a < e$

99.



$m(\widehat{BED}) = 3 \cdot m(\widehat{AFB})$

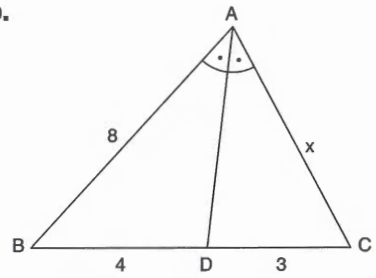
$m(\widehat{ABC}) = 56°$

$m(\widehat{DCT}) = 30°$

$\Rightarrow m(\widehat{AFB}) = ?$

A) 72° B) 68° C) 62° D) 56° E) 47°

100.



$m(\widehat{BAD}) = m(\widehat{DAC})$

$|AB| = 8$ br

$|BD| = 4$ br

$|DC| = 3$ br

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 12

DENEME SINAVI 24 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	D	D	A	B	C	B	C	D	B	C	C	C	E	A	B	C	E	C	C

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	D	B	E	B	B	D	D	C	B	B	A	B	A	C	D	D	C	D	D

41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
D	A	C	E	E	A	C	D	E	D	C	B	B	B	A	C	C	C	C	A

61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
D	A	A	E	B	E	A	A	B	A	D	C	D	C	C	A	B	C	B	C

81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
C	C	C	B	B	E	B	C	C	E	A	E	A	C	A	D	C	A	E	C

DENEME SINAVI 25
TRIAL EXAM 25

1.

SIRA	⇒	✶✦△□
KARA		□△✦▲
IRAK		✦✶□△
ASIR		✶□△✦
SARI		▲✦△✦

⇒ASIR = ?

A) ✶✦△□ B) □△✦▲ C) ✦✶□△ D) ✶□△✦ E) ▲✦△✦

2.

AKIL	1234
YAKA	5123
YAKI	5151
LALA	5121
YAYA	4141

⇒ YAKI = ?

A) 1234 B) 5123 C) 5151 D) 5121 E) 4141

3.

$$\begin{array}{r} ABC \\ CBA \\ +\ BAC \\ \hline 1A6A \end{array}$$

$\Rightarrow \frac{A+C\times B}{A-B} = ?$

A) 9 B) 10 C) 12 D) 14 E) 16

4.

$$\begin{array}{r} KL \\ \times\ 2M \\ \hline 72 \\ +\ CD \\ \hline 4C2 \end{array}$$

$\Rightarrow \frac{(K+L)\times M}{C+D} = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

5.

$$\begin{array}{r|l} ABL & ML \\ -\ ML & \hline & MN \\ \hline 7L & \\ -\ 7K & \\ \hline 6 & \end{array}$$

⇒ ML + MN = ?

A) 39 B) 38 C) 36 D) 34 E) 32

6.

$$\begin{array}{r} A6A7 \\ +\ 7A6A \\ \hline 14BBB \end{array}$$

⇒ A + B = ?

A) 6 B) 7 C) 8 D) 9 E) 10

7. I. $1 \bullet 2 \blacksquare 3 \rightarrow 5$

II. $3 \bullet 4 \blacksquare 5 \rightarrow 17$

III. $2 \bullet 6 \blacksquare 3 \rightarrow 15$

IV. $4 \bullet 3 \blacksquare 4 \rightarrow ?$

Yukarıdaki ilk üç eşitlik ● ve ■ işaretlerinin görevlerini belirtmektedir. Buna göre dördüncü eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ● and ■ are unchanged. what is the solution to the third equation?

A) 12 B) 16 C) 18 D) 19 E) 20

8. I. $a \bullet b = a^2 - 2b + 1$

II. $a \blacklozenge b = 2a - 3b$

III. $(5 \bullet 3) \blacklozenge (12 \blacklozenge 3) = ?$

Yukarıdaki ilk üç eşitlik ● ve ◆ işaretlerinin görevlerini belirtmektedir. Buna göre üçüncü eşitlikteki soru işaretinin yerine ne gelmelidir?

In the equations above, the function of ● and ◆ are unchanged. what is the solution to the third equation?

A) 5 B) –5 C) 1 D) 0 E) –1

9. I. $1 \rightarrow 0$

II. $2 \rightarrow 4$

III. $3 \rightarrow 18$

IV. $4 \rightarrow 48$

V. $5 \rightarrow ?$

A) 50 B) 60 C) 64 D) 75 E) 100

10.

x	a	b	c
a		96	
b			
c	32	192	

$\Rightarrow \frac{a \cdot b}{c} = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belirli birer sayının yerine kullanılmıştır. Buna göre $\frac{a \cdot b}{c}$ kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of $\frac{a \cdot b}{c}$?

A) 6 B) 8 C) 12 D) 16 E) 24

11.

x	a	b	c
a		$\frac{1}{2}$	
b			4
c	32		

$\Rightarrow a + c = ?$

Yukarıdaki çarpma tablosunda a, b ve c harfleri belli birer sayının yerine kullanılmıştır. Buna göre a + c kaçtır?

In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of a+ c?

A) 12 B) 14 C) 16 D) 18 E) 19

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12.

+	a	b	c
a	b + 5		
b		c + 4	17

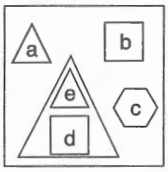
$\Rightarrow (a + b) - c = ?$

Yukarıdaki çarpma tablosunda a, b va c harfleri belli birer sayının yerine kullanılmıştır. Buna göre (a + b) – c kaçtır?

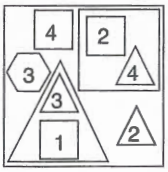
In the multiplication table above, the letters a, b and c each stand for a specific number. What is the value of (a+ b) – c?

A) 0 B) 1 C) 2 D) 3 E) 4

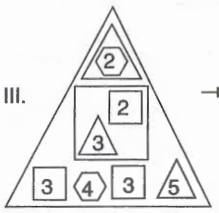
13.

I. 

→ 4[(3·a+4·b+6·c)+3(4·d+3·e)]

II. 

→ 636

III. 

→ ?

A) 289 B) 393 C) 429 D) 501 E) 687

14.

I.  → 13

II.  → 21

III.  → 5

IV.  → ?

A) 7 B) 12 C) 28 D) 30 E) 36

15.

ADA → 

KARA → 

KADER → 

ATILGAN → ?

A)  B)  C) 

D)  E) 

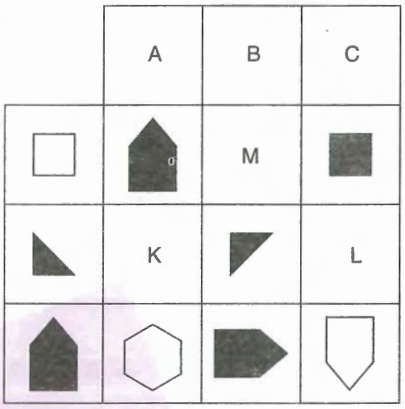
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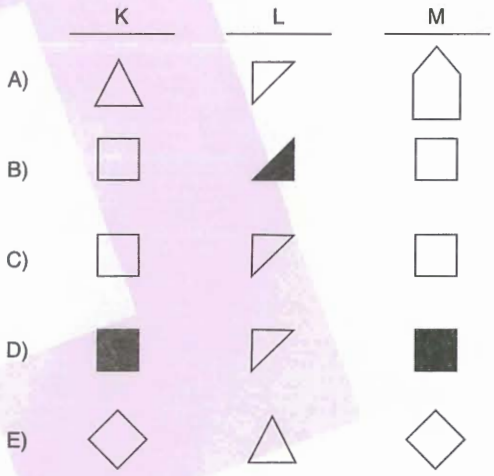
△	1	2	3	4	5
1	4	5	1	2	3
2	5	1	2	3	4
3	1	2	3	4	5
4	2	3	4	5	1
5	3	4	5	1	2

⇒ (5 △ 3) △ (2 △ 3) = ?

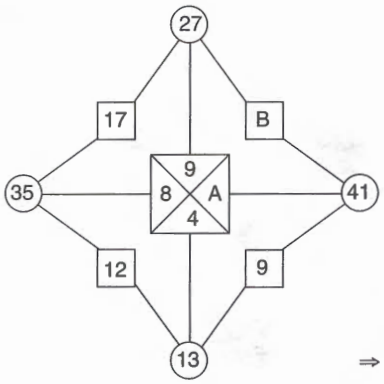
A) (1 △ 4) △ (5 △ 2)
B) (2 △ 3) △ (3 △ 1)
C) (3 △ 3) △ (4 △ 3)
D) (5 △ 2) △ (2 △ 1)
E) (4 △ 5) △ (3 △ 2)

17.





18.

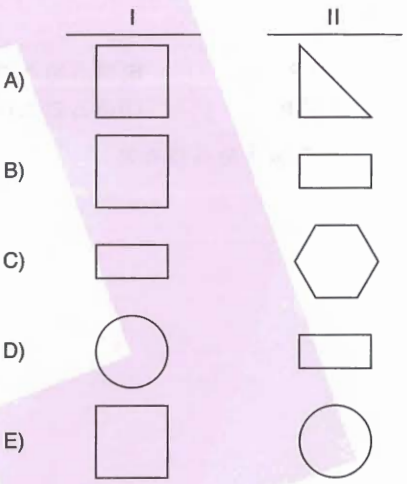


⇒ B – A = ?

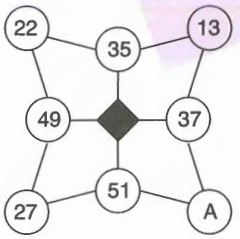
A) 9 B) 11 C) 29 D) 32 E) 36

19.

*			
	1	0	1
I	1	1	1
II	0	2	0



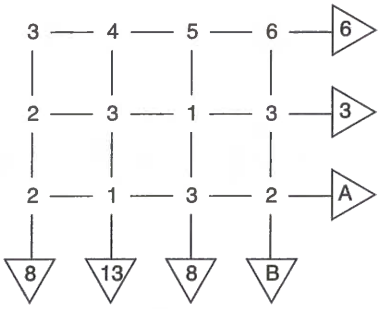
20.



⇒ A = ?

A) 12 B) 15 C) 22 D) 23 E) 24

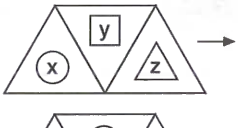
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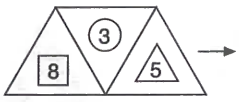
⇒ A = ? B = ?

	A	B
A)	3	18
B)	3	20
C)	4	16
D)	4	20
E)	4	24

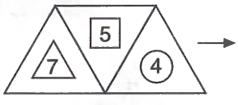
22.



$\rightarrow \frac{x-2}{2} + \frac{y+3}{4} + \frac{z-5}{2}$



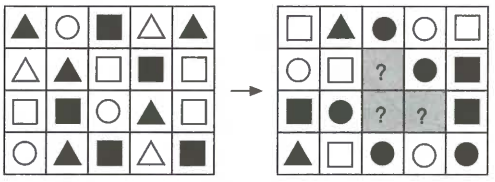
$\rightarrow \frac{8+3}{2} + \frac{3-2}{4} + \frac{5-5}{2}$



$\rightarrow$?

A) 3 B) 4 C) 8 D) 10 E) 12

23.



A) 

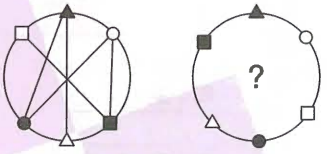
B) 

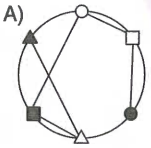
C) 

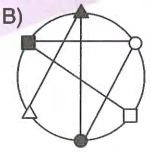
D) 

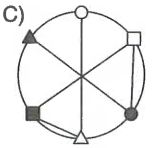
E) 

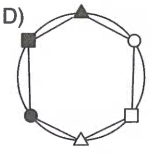
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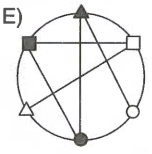


A) 

B) 

C) 

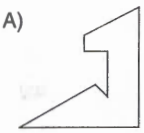
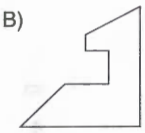
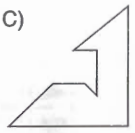
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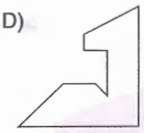
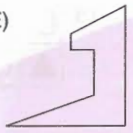
E) 

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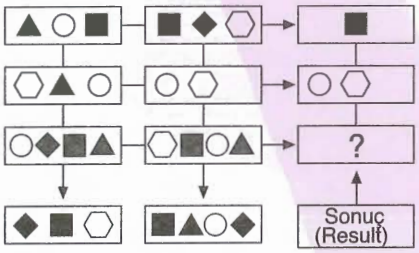
25.



A) 
B) 
C) 

D) 
E) 

26.



A) 
B) 
C) 
D) 
E) 

27.

2	5	14	41	122	?

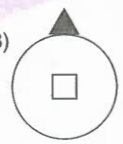
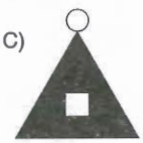
A) 254 B) 244 C) 365 D) 368 E) 400

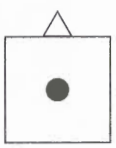
28.

I. 

II. 

III. 
?

A) 
B) 
C) 

D) 
E) 

29.

I. 

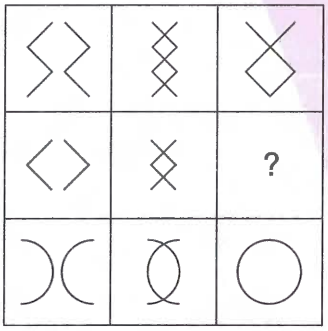
II. 

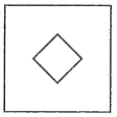
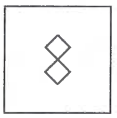
III. 

?

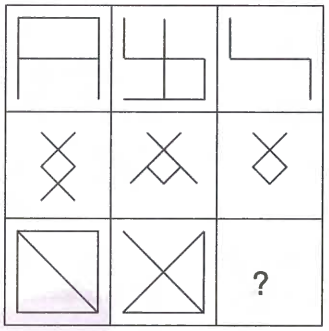
A) 
B) 
C) 
D) 
E) 

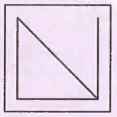
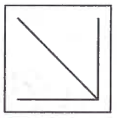
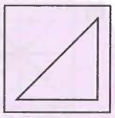
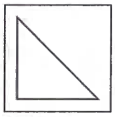
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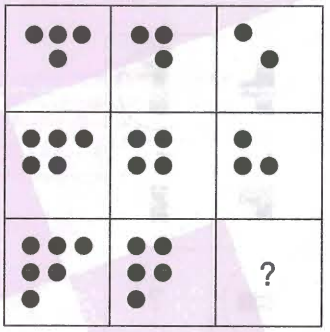
A) 
B) 
C) 
D) 
E) 

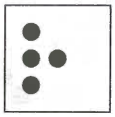
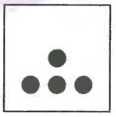
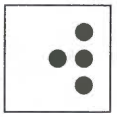
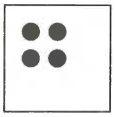
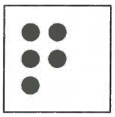
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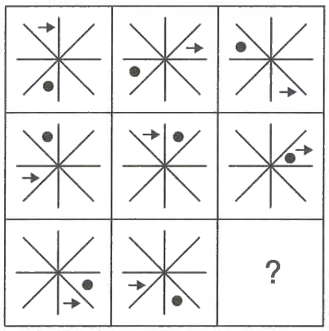
A) 
B) 
C) 
D) 
E) 

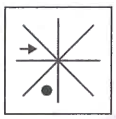
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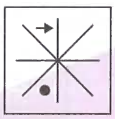


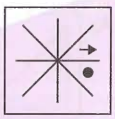
A) 
B) 
C) 
D) 
E) 

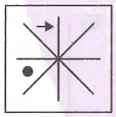
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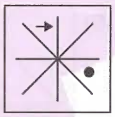


A) 

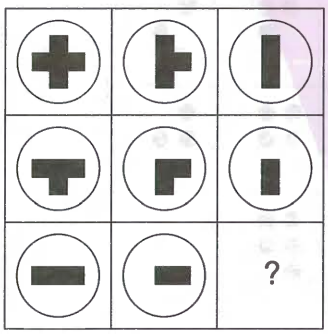
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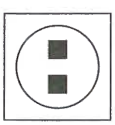
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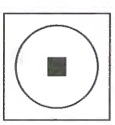
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E) 

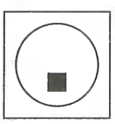
34.

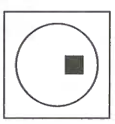


A) 

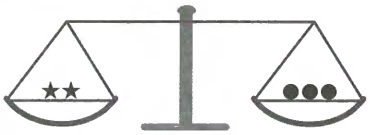
B) 

C) 

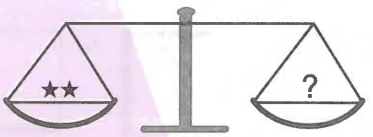
D) 

E) 

35.

I. 

II. 

III. 

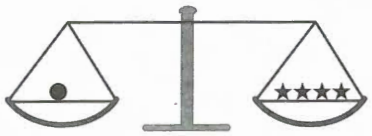
I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In acordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ■■ B) ●■ C) ●●■

D) ■■★ E) ■●★

36.

I. 

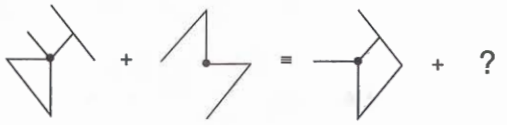
II. 

III. 

I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In acordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ★★▲▲▲ B) ●●● C) ●★★▲
D) ●▲★ E) ▲▲▲▲★

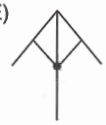
37. 

A) 

B) 

C) 

D) 

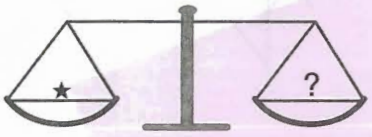
E) 

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38.

I. 

II. 

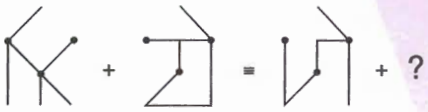
III. 

I. ve II. terazi dengede olduğuna göre, III. terazinin boş kefesine aşağıdakilerin hangisinde verilen ağırlıklar konulursa terazi dengeye gelir?

In acordance with I and II, which group of the weights below, when placed on the empty tray in III, will make the scale balance?

A) ▲▲▲ B) ●●▲ C) ▲▲ D) ●● E) ●▲▲

39.



A)  B)  C) 

D)  E) 

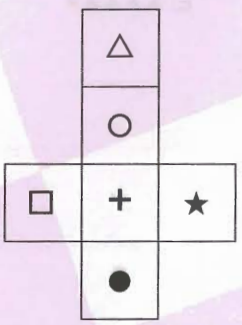
40.



A)  B)  C) 

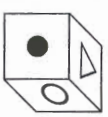
D)  E) 

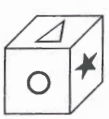
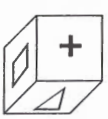
41.



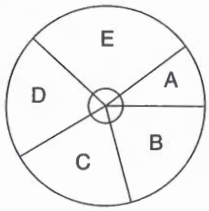
Yukarıdaki şekilde kapatılmış hali aşağıdakilerden hangisidir?

Which of the follofwing is folded form of the figure on the right?

A)  B)  C) 

D)  E) 

42.

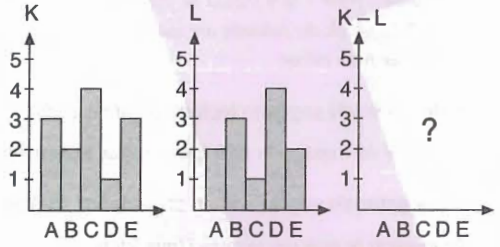


A = 3x + 1
B = 5x + 6
C = 8x + 1
D = 5x – 8
E = 9x

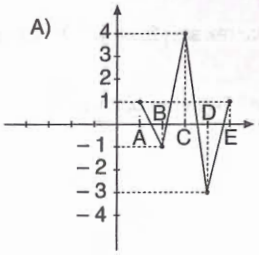
⇒ C = ?

A) 37° B) 58° C) 66° D) 97° E) 108°

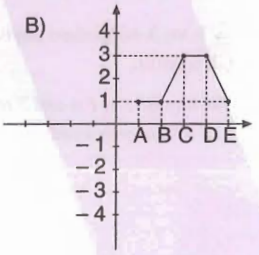
43.



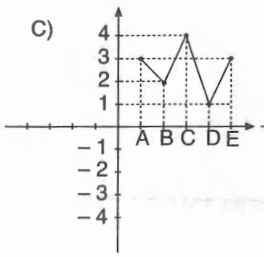
A)



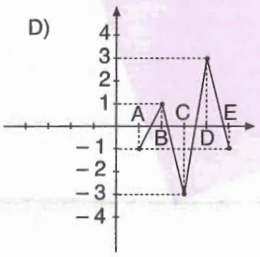
B)



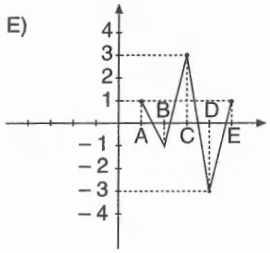
C)



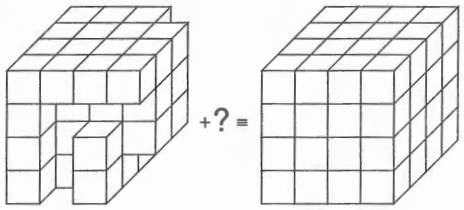
D)



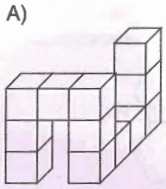
E)



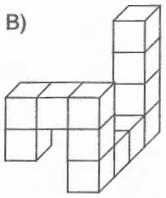
44.



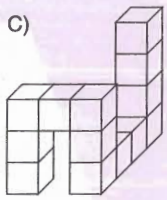
A)



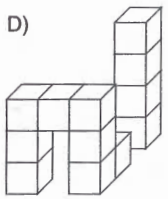
B)



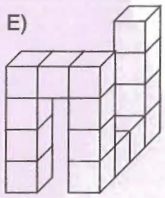
C)



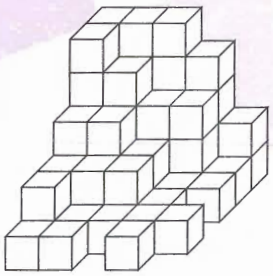
D)



E)



45.



Yukarıdaki şekilde kaç küp vardır?

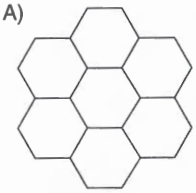
How many cubes are there in given figure above?

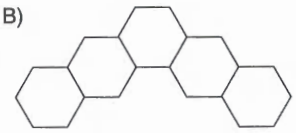
A) 62 B) 63 C) 64 D) 65 E) 66

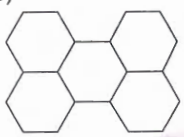
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46. Aynı düzgün altıgen birimlerinden oluşan aşağıdaki şekillerden hangisinin çevre uzunluğu en fazladır?

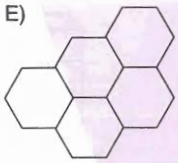
How many cubes are there in the given figure above?

A) 

B) 

C) 

D) 

E) 

47 – 49 soruları aşağıdaki bilgilere göre cevaplayınız.
Answer the questions 47 – 49 according to the information below.

1.	2.	3.	4.
		11	12
			10

Sütunları yukarıdaki gibi numaralanmış tablonun boş kalan dokuz kutucuğuna 1 den 9'a kadar olan sayılar aşağıdaki kurallara göre yazılır.

The numbers from 1 to 9 should be placed in the empty boxes of the table in which the columbs are numbered as above according to the rules given below:

⇒ Her satırdaki sayıların toplamı birbirine eşittir.

The sum of the numbers in each row are equal to each other.

⇒ Her satırdaki sayılar soldan sağa doğru artmaktadır.

The numbers in each row increases from left to right

⇒ 1. ve 3. sütundaki sayılar tek sayı 2. ve 4. sütundakilerse çift sayıdır.

The numbers in 1 st and 3 rd columns are odd numbers while 2nd and 4th are even numbers

47. Bir satırdaki sayıların toplamı kaçtır?

What is the sum of the numbers a line?

A) 26 B) 28 C) 30 D) 32 E) 34

48. Bu tabloyla ilgili olarak;

With regard to the table;

I. 6 sayısı, 2. sütundadır

The number 6 is in the 2 nd columb

II. 1 ve 2 sayıları aynı satırdadır

The numbers 1 and 2 are in the same line

III. 4 ve 8 sayıları aynı satırdadır

The numbers 4 and 8 are in the same line

IV. 1. sütundaki sayıların toplamı 9 dur

The sum of the numbers in the 1 st columb is 9

Yargılarından hangileri doğrudur?

Which is true?

A) I ve II B) I ve III C) II ve IV D) I, II ve IV E) I, III ve IV

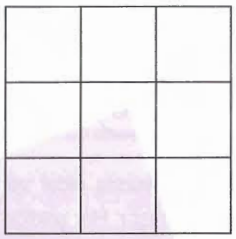
49. 3 ile aynı satırda, 6 ile aynı sütunda olan sayı hangisidir?

Which number listed below is in the same line with 3 and in the same columb with 6 ?

A) 2 B) 4 C) 8 D) 10 E) 12

50. Aşağıdaki karenin kutucuklarına 1, 2, 3 rakamları her satırda ve her sütunda birer tane olacak şekilde yazılacaktır.

The number 1, 2, 3 will be placed into the given square below but there will be only in each line and in each columb.

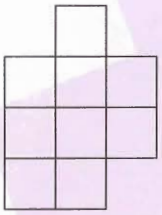


Bu yazılış kaç farklı şekilde yapılabilir?

In how many different ways can it be done?

A) 6 B) 9 C) 12 D) 15 E) 16

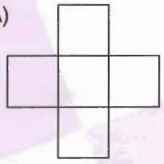
51.



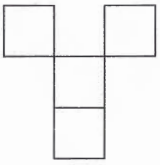
Yukarıdaki şeklin içinde aşağıdakilerden hangisi yoktur?

Which of the below figure isn't the given figure?

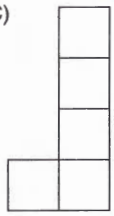
A)



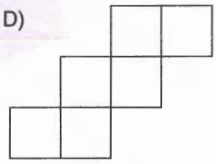
B)



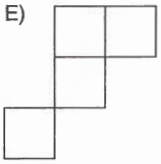
C)



D)

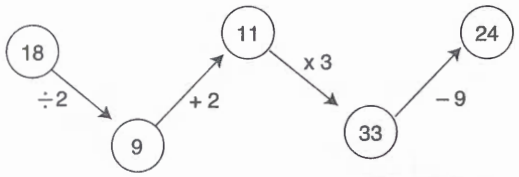


E)



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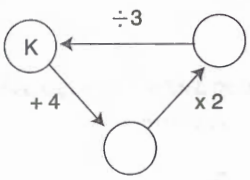
52 – 53 soruları aşağıdaki bilgilere göre cevaplayınız.
Answer the questions 52 – 53 according to the information below.



Aritmetik işlemlerin yer aldığı bir oyunda oklar ve çemberlerden oluşmuş şekiller kullanılmıştır. Her şekilde okun yanında belirtilen +, ÷, – , x işleminin yapılması ve elde edilen sonucun çemberin içine yazılması gerekmektedir.

In a game where the arithmetic games take place, the shape made up of arrows and hoops are used. In each shape the operetion +, ÷, – , x next to the arrows should be done and required answer should be written into the hoop

52.

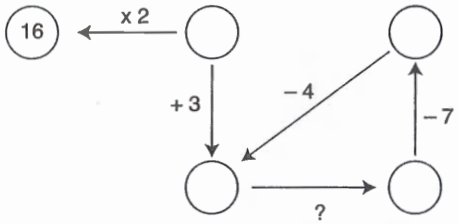


Yukarıdaki şekle göre K kaçtır?

What is the value of K according to the shape above?

A) 8 B) 7 C) 6 D) 5 E) 4

53.

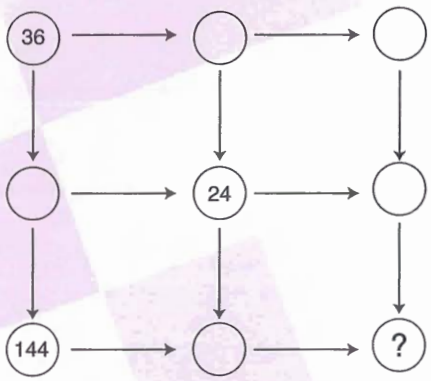


Yukarıdaki şekle göre, soru işaretinin yerine aşağıdaki işlemlerden hangisi getirilmelidir?

Accordoing to the shape above, which operetion should be placed instead of the question mark?

A) + 3 B) + 2 C) – 3 D) x 2 E) ÷ 2

54.

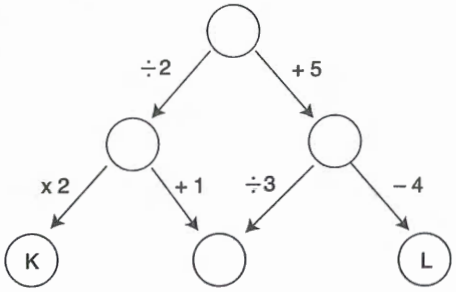


Yukarıdaki şekilde soldan sağa okların tümü ÷ A, yukarıdan aşağıya doğru olan okların tümü de x B işlemini gösteriyor. Buna göre, soru işaretinin yerine getirilmesi gereken sayı kaçtır?

All the arrows from left to right show the operation ÷ A, all the arows from top to bottom shows the operation x B Accoroding to this, What is the number which be replaced by the question mark?

A) 4 B) 8 C) 12 D) 16 E) 36

55.



Yukarıdaki şekle göre K + L toplamı kaçtır?

Accoroding to the shape above what is the value of K + L?

A) 9 B) 10 C) 11 D) 12 E) 13

56. $a, b \in Z^-$

$$\left.\begin{matrix} a \cdot b = 11 \\ b \cdot c = 13 \end{matrix}\right\} \Rightarrow a + c - b = ?$$

A) − 25 B) − 23 C) − 12 D) − 1 E) 23

57. $A, x \in Z^+$

$$A = \frac{x+13}{x+2}$$

$\Rightarrow A + x = ?$

A) 7 B) 9 C) 10 D) 11 E) 13

58. $(231)_4 = (ab)_7$

$\Rightarrow a + b = ?$

A) 5 B) 6 C) 7 D) 8 E) 9

59. $\dfrac{2}{\frac{2}{3}} - \dfrac{\frac{2}{3}}{2} = ?$

A) $\frac{8}{3}$ B) 2 C) $\frac{1}{3}$ D) 0 E) $-\frac{2}{3}$

60. $\dfrac{(0,002)^4}{(0,01)^6} = ?$

A) $\frac{1}{8}$ B) $\frac{1}{2}$ C) 2 D) 4 E) 16

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61. $\frac{x^2}{x-3} - \frac{9}{x-3} = 6$

$\Rightarrow$ S.S.=?

A) {– 3} B) {3} C) {6} D) {9} E) Ø

62. $ax = by = cz$

$a + b + c = 12$

$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = \frac{3}{4}$

$\Rightarrow ax = ?$

A) 9 B) 12 C) 15 D) 16 E) 18

63. $2 - 4 + 6 - 8 + 10 - 12 + ... + 38 - 40 = ?$

A) – 40 B) – 20 C) – 10 D) 20 E) 40

64. $x, y \in N$

$x^2 - y^2 = 23$

$\Rightarrow x = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

65. $x, y \in Z$

$\frac{1}{x-3} + \frac{1}{y-1} = 1$

$\Rightarrow x + y = ?$

A) 9 B) 8 C) 5 D) 3 E) 1

66. $\sqrt[6]{x-2y} + |3x-6| = 0$

$\Rightarrow x + y = ?$

A) 3 B) 2 C) 1 D) 0 E) – 1

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67. $\frac{5}{1+5^{-x}}+\frac{5}{1+5^{x}}=?$

A) $\frac{1}{5}$ B) 1 C) $\frac{5}{4}$ D) 4 E) 5

68. $\log_{\sqrt{3}}\left(\frac{1}{3}\right)+\ln 3\cdot\log_{\sqrt{3}} e^{3}=?$

A) -2 B) -1 C) 1 D) 2 E) 4

69. $b \in Z$

$2x^2 + bx + 26 = 0$

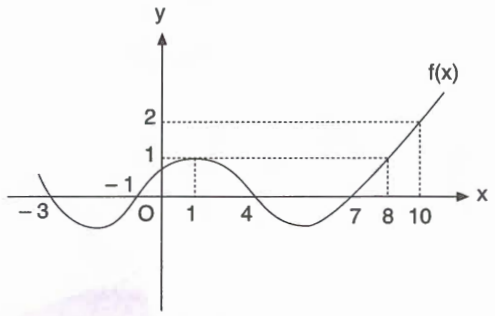
S.S. $= \{x_1, x_2\}$

$x_1 = 4+\sqrt{3}$

$\Rightarrow b = ?$

A) -20 B) -16 C) -8 D) 8 E) 16

70.



$\Rightarrow \left[\!\left[f(9) \right]\!\right] + \text{sgn}(f(0)) = ?$

A) 2 B) 1 C) 0 D) -1 E) -2

71. $\prod_{k=3}^{10}(k^2-9k+20)=?$

A) 5! B) 4! C) 5! − 4! D) $(5!)^2$ E) 0

72. $a \in R$

$x \cdot P(x+1) = x^2 + 3x + 5 - a$

$\Rightarrow P(1) = ?$

A) 3 B) 2 C) 1 D) -2 E) -4

73. $f(x) = 2 \cdot f\left(\frac{1}{x}\right) + 4x$

$\Rightarrow f(2) = ?$

A) -6 B) -4 C) -3 D) -2 E) -1

74. $i^2 = -1$

$\sqrt{-4} \cdot \sqrt{-1} + \sqrt[3]{-8} + \sqrt{i^{10}} = ?$

A) i B) $-i$ C) $-4+i$

D) $-4-i$ E) $-2+i$

75. $0 < 2x < \frac{\pi}{2}$

$\tan(2x) = \frac{7}{24}$

$\Rightarrow \tan x = ?$

A) $\frac{1}{7}$ B) $\frac{24}{25}$ C) 7 D) 14 E) 49

76. $\lim_{x \to -\infty} \left(\frac{\sqrt{x^2+1} + 2x}{x+7} \right) = ?$

A) 3 B) 2 C) 1 D) -1 E) -3

77. $\lim_{x \to 2} \left(\frac{x^2 - 2x}{x^2 - 5x - 6} \right) = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

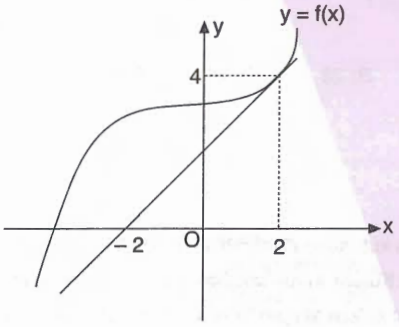
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78. $\int f(x)dx = 2x^3 + 5x^2 + 4x + 11$

$\Rightarrow f(2) = ?$

A) 15 B) 18 C) 24 D) 36 E) 48

79.



$\Rightarrow f(2) + f'(2) = ?$

A) 6 B) 5 C) 4 D) 3 E) 2

80. $f:\left[\frac{\pi}{2}, \pi\right] \to R$

$f(x) = |\cos x - \sin x|$

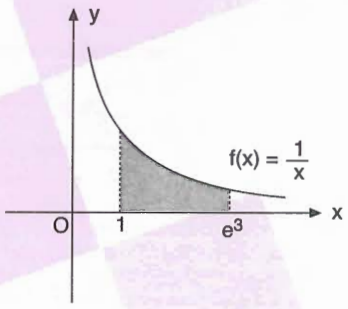
$\Rightarrow f'(x) = ?$

A) $\sin x - \cos x$ B) $\cos x - \sin x$

C) $\sin x + \cos x$ D) $-\sin x - \cos x$

E) $2\sin x$

81.



$\Rightarrow$ Taralı Alan *(Shaded Area)* = ?

A) 1 B) 2 C) e D) 3 E) 3e

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82. $A = \begin{bmatrix} 4 & 5 \\ 1 & 2 \end{bmatrix}$

$B = \begin{bmatrix} \sin x & \cos x \\ \cos x & -\sin x \end{bmatrix}$

$\Rightarrow \det(A \cdot B) = ?$

A) -3 B) -1 C) 1 D) 2 E) 3

83. $A = \begin{bmatrix} 1 & 3 \\ 0 & 1 \end{bmatrix}$

$\Rightarrow A^5 = ?$

A) $\begin{bmatrix} 1 & 3 \\ 0 & 1 \end{bmatrix}$ B) $\begin{bmatrix} 1 & 15 \\ 0 & 1 \end{bmatrix}$ C) $\begin{bmatrix} 1 & 243 \\ 1 & 1 \end{bmatrix}$

D) $\begin{bmatrix} 1 & 125 \\ 0 & 1 \end{bmatrix}$ E) $\begin{bmatrix} 1 & 8 \\ 0 & 1 \end{bmatrix}$

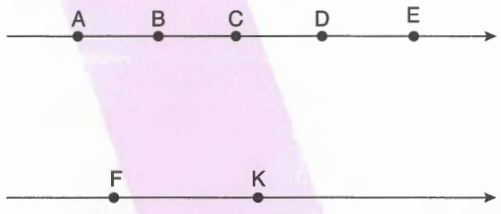
84. $\int_3^7 |x-4|\,dx = ?$

A) 12 B) 9 C) 8 D) 6 E) 5

85. $\int_{-1}^{1} (x^2 + \sin x)\,dx = ?$

A) $-\frac{1}{3}$ B) 0 C) $\frac{1}{3}$ D) $\frac{2}{3}$ E) 1

86.



Şekildeki A, B, C, D, E, F, K noktalarını köşe kabul edilecek şekilde kaç üçgen çizilebilir?

How many triangles can be made if A, B, C, D, E, F, K are assumed to be corners ?

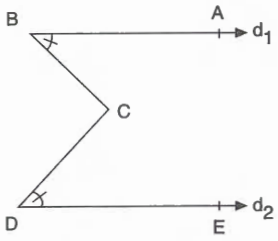
A) 30 B) 28 C) 25 D) 20 E) 18

87. Bir kalem kutusunda 6 siyah 4 kırmızı 7 yeşil kalem bulunmaktadır.Kalem kutusuna bakmadan kalem alan çocuk en az kaç kalem aldığında kesin bir siyah kalem almıştır?

In a pencilcalese there are 6 black,4 red and 7 green pencils. The child takes a pencil from the pencilcase whithout looking in it. Minimum how many pencils, should he take in order to have one black pencil?

A) 13 B) 12 C) 11 D) 10 E) 9

88.



[BA // [DE

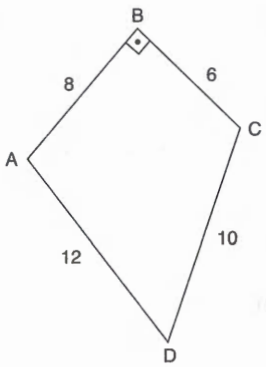
$m(\widehat{ABC}) = m(\widehat{CDE})$

$m(\widehat{BCD}) = 98°$

$m(\widehat{ABC}) = ?$

A) 48° B) 49° C) 50° D) 51° E) 52°

89.



[AB] ⊥ [BC]

|AB| = 8 br

|BC| = 6 br

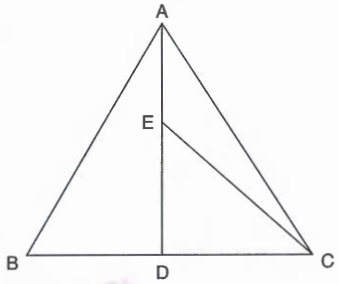
|AD| = 12 br

|DC| = 10 br

⇒ A(ABCD) = ?

A) 64 B) 66 C) 68 D) 70 E) 72

90.



|DC| = 4|BD|

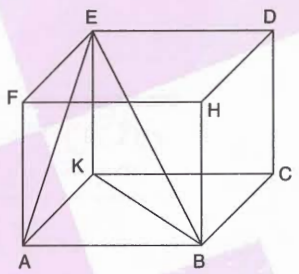
|AD| = 3|AE|

A(ABC) = 105 br^2

⇒ A(EDC) = ?

A) 56 B) 52 C) 48 D) 44 E) 40

91.



Dikdörtgen prizma

(Rectangular Prism)

|AB| = 6 br

|BC| = 4 br

|DC| = 8 br

(E, ABK) üçgen piramit

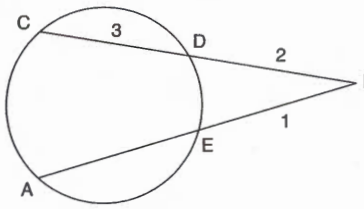
(triangle pyramid)

V(E, ABK) = ?

A) 96 B) 84 C) 64 D) 48 E) 32

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92.



|DB| = 2 br
|CD| = 3 br
|BE| = 1 br
|AE| = x
⇒ x = ?

A) 10 B) 9 C) 8 D) 7 E) 6

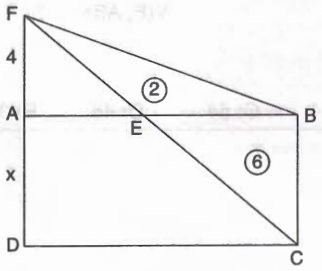
93.

$\left.\begin{matrix}\vec{A}(2,3,x)\\ \vec{B}(1,4,2)\end{matrix}\right\}$ $\vec{A} \perp \vec{B}$

⇒ x = ?

A) – 14 B) – 7 C) 0 D) 7 E) 14

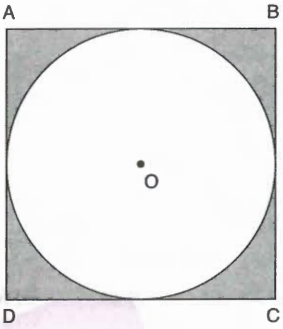
94.



ABCD dikdörtgen
(rectangle)
A(EFB) = 2 br²
A(EBC) = 6 br²
|FA| = 4 br
|AD| = x
⇒ x = ?

A) 15 B) 12 C) 8 D) 4 E) 2

95.



ABCD kare tahta *(ABCD square board)*

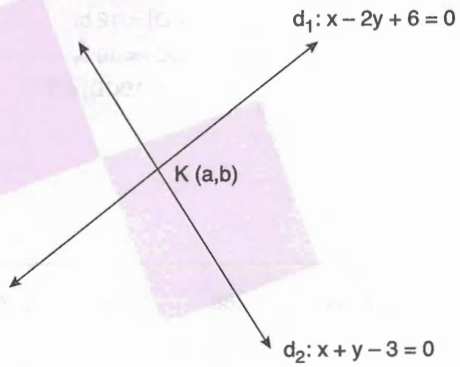
O merkezli daire *(A circle with a center O)*

Tahtayı hedef alan bir okçunun tahtayı vurduğu bilindiğine göre taralı alanı vurma olasılığı nedir?(π = 3)

Assuming that an archer Who aims the board hits the board what is the possibility of hitting the shaded area ? (π = 3)

A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{1}{4}$ D) $\frac{2}{3}$ E) $\frac{5}{6}$

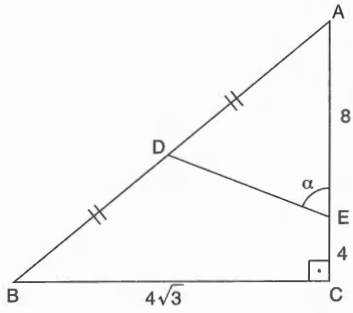
96.



⇒ a + b = ?

A) – 2 B) – 1 C) 0 D) 2 E) 3

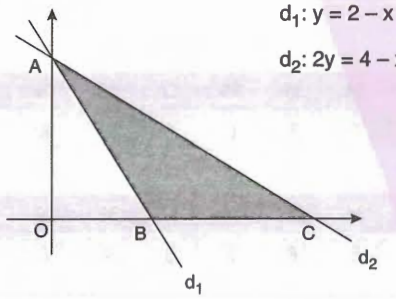
97.



$|AD| = |DB|$
$|AE| = 8$ br
$|EC| = 4$ br
$|BC| = 4\sqrt{3}$ br
$m(\widehat{DEA}) = \alpha$
$\Rightarrow \alpha = ?$

A) 15 B) 30 C) 45 D) 60 E) 75

98.

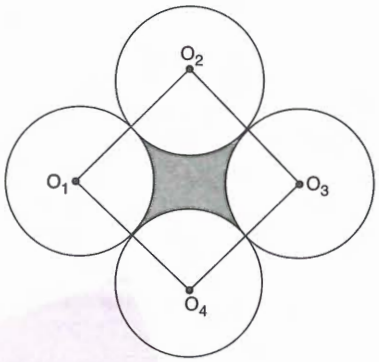


$d_1: y = 2 - x$
$d_2: 2y = 4 - x$

$\Rightarrow A(ABC) = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

99.



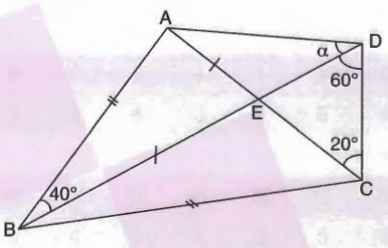
O_1, O_2, O_3, O_4 r yarıçaplı eş çemberler.
(Identical circles with a radius r)

$A(O_1\,O_2\,O_3\,O_4) = 64$ br^2 $(\pi = 3)$

$\Rightarrow$ Taralı alan *(shaded area)*= ?

A) 48 B) 32 C) 28 D) 16 E) 12

100.



$|AB| = |BC|$
$|AE| = |BE|$
$m(\widehat{BDC}) = 60°$
$m(\widehat{ACD}) = 20°$
$m(\widehat{ABD}) = 40°$
$m(\widehat{ADB}) = \alpha$
$\Rightarrow \alpha = ?$

A) 70 B) 60 C) 50 D) 40 E) 30

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DENEME SINAVI 25 TRIAL EXAM

Yanıt Anahtarı — Answer Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C	B	A	D	E	D	B	B	E	C	D	D	D	C	E	C	C	A	B	E

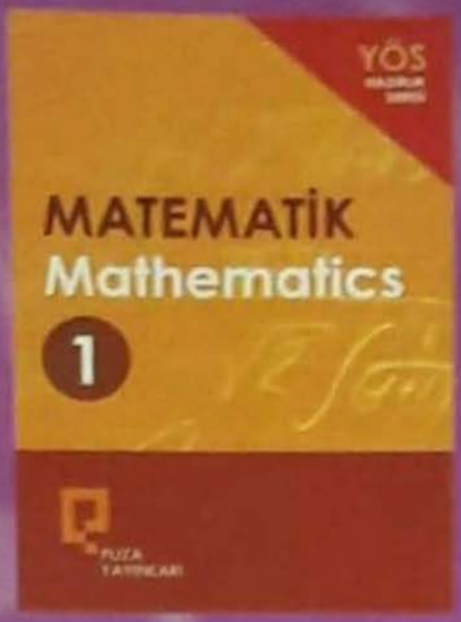
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
D	B	B	B	D	A	C	D	D	D	B	A	B	B	B	B	B	A	C	A

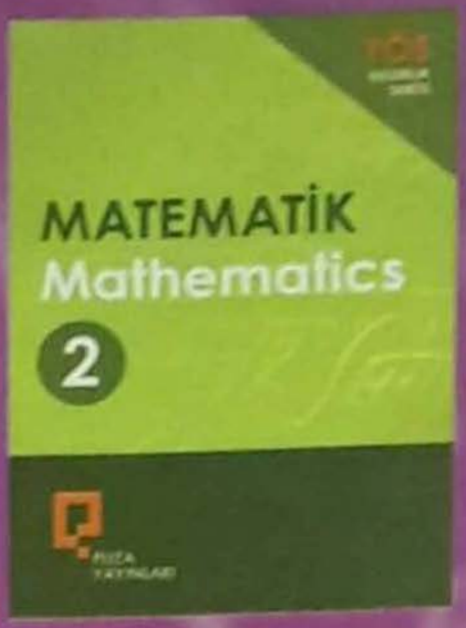
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
D	D	E	C	B	B	A	D	B	B	D	A	D	D	A	B	D	E	A	E

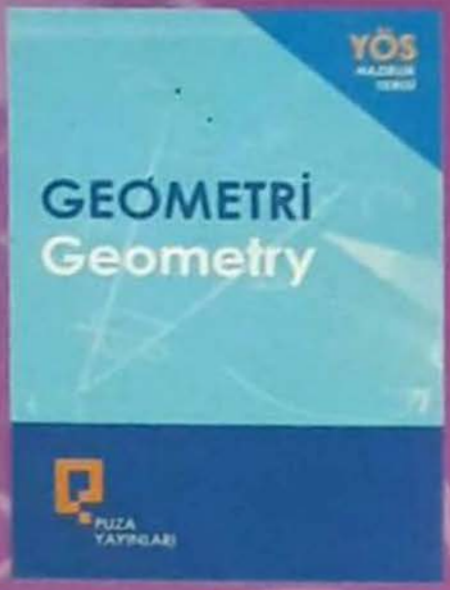
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
E	D	B	D	B	A	E	E	B	A	E	A	B	C	A	C	C	E	B	C

81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
D	A	B	E	D	C	B	B	E	A	E	B	B	B	C	E	D	A	D	A

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