

آزمون های آزمایشی یوسس



1) $\frac{x \cdot y}{z \cdot t} = \frac{1}{2}$ ve, and $\frac{y+t}{t} = \frac{5}{2}$
 $\Rightarrow \frac{z}{x} = ?$

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

2) x ve y pozitif tam sayılar.

x and y are positive integers.

$$3x - 4y = 121$$

olduğuna göre, x 'in alabileceği en küçük 2. Değer kaçtır?

what is the second smallest value that x can take?

- A) 43 B) 47 C) 46 D) 44 E) 45

3) 275a ve 4a38 dört basamaklı iki sayıdır.

•275a sayısı 4 ile

•4a38 sayısı 3 ile

275a and 4a38 are tow four-digit number.

•275a with number 4

•4a38 with number 3

tam bölünebildiğine göre, a kaçtır?

Since it is divisible by whole, what is a?

- A) 0 B) 2 C) 4 D) 6 E) 8

4) A , x , y ve z pozitif sayıları için,

For positive number A, x, y and z

$$A = 4x + 2 = 6y + 4 = 10z + 8$$

Eşitliğini Sağlayan en küçük üç basamaklı A sayısının rakamları toplamı kaçtır?

What is the sum of the digits of the smallest three-digit number A that satisfies the equation?

- A) 2 B) 6 C) 9 D) 10 E) 14

5) $x + \frac{1}{3 - \frac{3}{x^2 - 3}}$

ifadesini tanımsız yapan kaç farklı değeri vardır?

How many different values of x are there that make the Expression undefined?

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

6) $x = \frac{1}{7} - \frac{1}{8}$ olduğuna göre,

$$x = \frac{1}{7} - \frac{1}{8} \text{ Since,}$$

İşlemini x türünden ifadesi aşağıdakilerden hangisidir?

Wich of the following expresses the operation in term of x ?

$$\frac{\frac{1}{49} - \frac{1}{28} + \frac{1}{64} - 1}{1 - \frac{1}{7} + \frac{1}{8}} = ?$$

- A) $x+1$ B) $2x-1$ C) $1-2x$ D) $1-x$ E) $-x-1$

7) Şekilde grafiği görülen $f(x)$ fonksiyonu ile

with the $f(x)$ function whose graph is shown in the figure

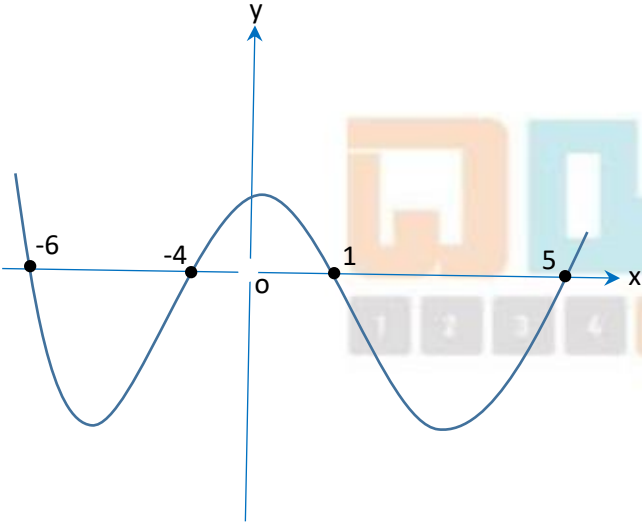
$$h(x) = \frac{x^2 - 4}{\sqrt{f(x)}}$$

fonksiyonu veriliyor.

The function is given.

Buna göre, $h(x)$ fonksiyonu kaç tane x tam sayı değeri için tanımsızdır?

Accordingly, for how many integer values x is the function $h(x)$ undefined?



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

8) $f(x)$ tek, $h(x)$ çift fonksiyondur.

$f(x)$ is odd, $h(x)$ is even function.

$$f(-8) = 10$$

$$h(5) = 8$$

olduğuna göre, $(f \circ h)(-5)$ aşağıdakilerden hangisidir?

which of the following is $(f \circ h)(-5)$?

- A) -10 B) -8 C) 5 D) 8 E) 10

9) $2^{\frac{x}{y}} = 5$

olduğuna göre, $5^{\frac{-y}{x}}$ ifadesinin değeri kaçtır?

what is the value of the expression $5^{\frac{-y}{x}}$?

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

10) $4^n + 2^{n+1} + 1 = 72 \cdot \left(1 + \frac{1}{2^n}\right) \Rightarrow n = ?$

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

11) $\sqrt{30.31.32.33+1} = ?$

- A) 921 B) 936 C) 939 D) 971 E) 991

12) $\sqrt[4]{2} < \sqrt[6]{x} < \sqrt[3]{5}$

olduğuna göre, x 'in alabileceği kaç farklı tam sayı değeri vardır?

How many different integer values x can take?

- A) 24 B) 22 C) 20 D) 18 E) 16

13) $9^{6n+5} + 5^{6n+3} \equiv x \pmod{7} \Rightarrow x = ?$

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

14) $(235412).(73737373)$

Carpımının 9 ile bölümünden kalan kaçtır?

what is the remainder after multiplying and dividing by 9?

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

15)

• $f(x-2) = x + m$

• $g(x+1) = x \Rightarrow m = ?$

• $(g \circ f^{-1})^{-1}(3) = 2$

- A) -4 B) 2 C) 6 D) -2 E) 0

16) $f(x) = x + 6$,

$f(2x-1)$, Hangisine eşittir?

Which is equal to $f(2x-1)$?

A) $2f(x) - 7$ B) $2f(x) + 1$ C) $4 - 2f(x)$

D) $2f(x) + 3$ E) $2f(x) - 5$

- 17) $A = \{ x : x^2 \leq 25 \quad x \in \mathbb{N} \}$
 $B = \{ x : |x+1| < 3 \quad x \in \mathbb{Z} \}$
 $\Rightarrow s(A \cup B) = ?$
 A) 7 B) 5 C) 6 D) 9 E) 8

- 18) Boş kümeden farklı A ve B kümeleri için,
 for sets A and B are non-empty set,
 $3.s(A \cup B) = 6.s(A \cap B) = 4.s(A)$
 $s(B) = 12$
 $s(B \setminus A) = ?$
 A) 4 B) 6 C) 8 D) 10 E) 12

- 19) $A = \{2, 3, 4, 5, 6\}$

A kümesinin alt Kümelerinin kaç tanesinde en büyük eleman 5 tir?

In how many of the sub-sets of the set A has the largest element 5?

- A) 1 B) 2 C) 4 D) 8 E) 16

- 20) a ve b doğal sayılar,

a and b are natural numbers.

$$\frac{a}{3} = \frac{b}{7} \Rightarrow EBOB(a, b) + EKOK(a+b, b-a) = 63$$

$$\Rightarrow b = ?$$

- A) 7 B) 14 C) 21 D) 28 E) 35

- 21) x bir reel (gerçek) sayıdır.

x is a real number.

$$-\frac{5}{6} < x < -\frac{3}{4}$$

$$A = \frac{x+5}{x+1}$$

yukarıda verilenlere göre, A'nın alabileceği kaç farklı tam Sayı değeri vardır?

According to the above, how many different integer Values can A take?

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

22) x reel (gerçek) sayıdır.

x is a real number.

$$x \in (-3, 5)$$

$$x^2 + 3x + 11 = b + x$$

yukarıda verilenlere göre, b kaç farklı tam sayı değeri alır?

According to the above, how many different integer Values can b take?

- A) 34 B) 35 C) 36 D) 38 E) 40

23) m gerçek sayısı için,

for the real number m ,

$$mx + 5y = 6$$

$$20x + my = 12$$

denklem sisteminin çözüm kümesi boş kümedir.

the solution set of the system of equations is the empty set.

$$m = ?$$

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

24)

$$4 - \frac{4 + \frac{1 - \frac{x}{5}}{5}}{3} = 2 \quad \Rightarrow x = ?$$

- A) -15 B) -10 C) -5 D) 5 E) 10

25) $a4b5c$

rakamları farklı beş basamaklı bir sayıdır.

Is a five-digit number with different digits

Bu sayının 5 ile bölümünden kalan 4;

9 ile bölümünden kalan 7 ise $a+b$ kaç farklı değer alabilir?

when this number is divided by 5, the remainder is 4;
if the remainder is 7 when divided by 9, how many different values can $a+b$ take?

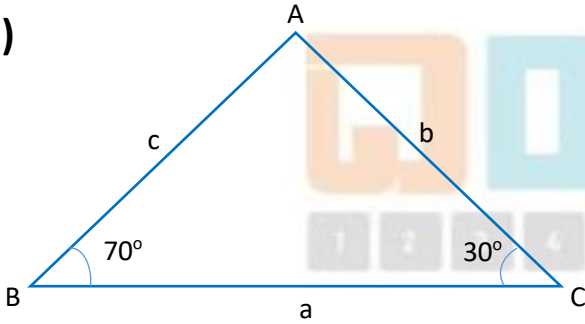
- A) 5 B) 1 C) 4 D) 2 E) 3

- 26) $(x + y)$ ile $(3x - y)$ aralarında asaldır.
 $(x + y)$ and $(3x - y)$ are relatively prime.

$$\frac{3x - y}{x + y} = \frac{12}{36} \Rightarrow x.y = ?$$

- A) 2 B) 6 C) 3 D) 8 E) 5

27)



$$\frac{|a - b| + |a + b - c| - |a - c|}{|c - a| + |a + c - b| + b} = ?$$

- A) $\frac{1}{2}$ B) $\frac{2}{3}$ C) $\frac{3}{4}$ D) $\frac{4}{5}$ E) 1

- 28) A ve B aynı evrensel kümenin iki alt kümesidir.

A and B are two subsets of the same universal set.

$$s(A' \cap B) = 2$$

$$s(B' - A) = 4$$

$$s(A - B)' = 11$$

$$s(B') = 13$$

$$\Rightarrow s(A \cup B) = ?$$

- A) 22 B) 20 C) 18 D) 17 E) 16

29)

$$f(x + 1) = f(x) + 5$$

$$f(1) = 4$$

$$\Rightarrow f(20) = ?$$

- A) 88 B) 90 C) 95 D) 99 E) 103

30)

$$\left. \begin{array}{l} 2x + 6y + 3z = 13 \\ -3x + y - 2z = 3 \end{array} \right\} x + y + z = ?$$

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

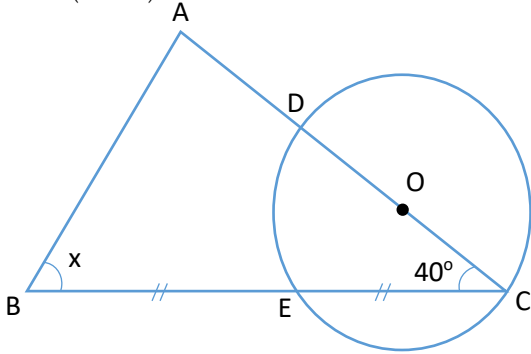
31) ABC üçgen, O noktası Çemberin merkezi.

ABC triangle, point O Center of the circle.

$$|BE| = |EC|, |AB| = 2 \cdot |OC|$$

$$m(\angle ACB) = 40^\circ$$

$$\Rightarrow m(\angle ABC) = x = ?$$

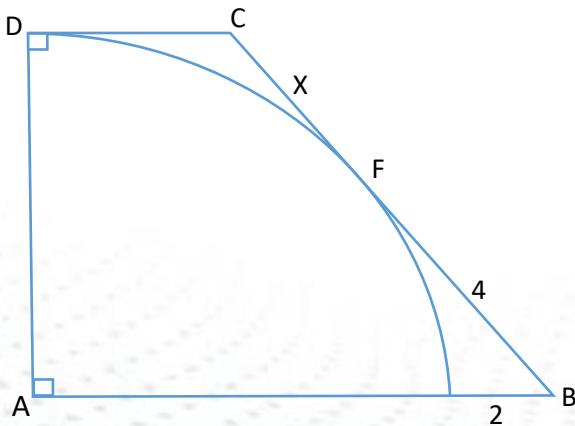


- A) 45 B) 50 C) 55 D) 60 E) 70

32) A merkezli çeyrek Çemberde D ve f teğet değme noktaları.

D and f tangent points of contact in the quadrant circle centered at A

$$\Rightarrow |CF| = x = ?$$



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

33) Şekildeki O merkezli Çeyrek dairede

In the quadrant circle with center O in the figure

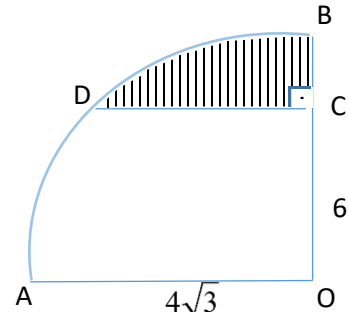
$$[DC] \perp [BO]$$

$$|AO| = 4\sqrt{3}$$

$$|OC| = 6$$

taralı bölgenin alanı kaç?

What is the area of the shaded region?

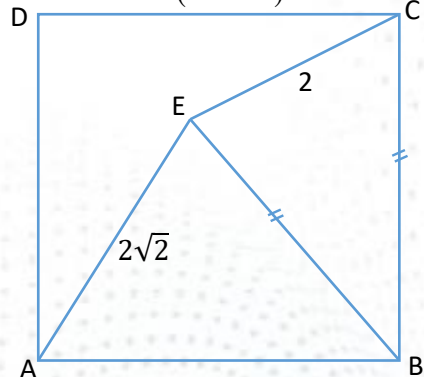


- A) $3\pi - 4\sqrt{3}$ B) $4\pi - 3\sqrt{3}$ C) $4\pi - 4\sqrt{3}$
D) $4\pi - 6\sqrt{3}$ E) $8\pi - 6\sqrt{3}$

34) ABCD kare , square

$$|BC| = |BE|$$

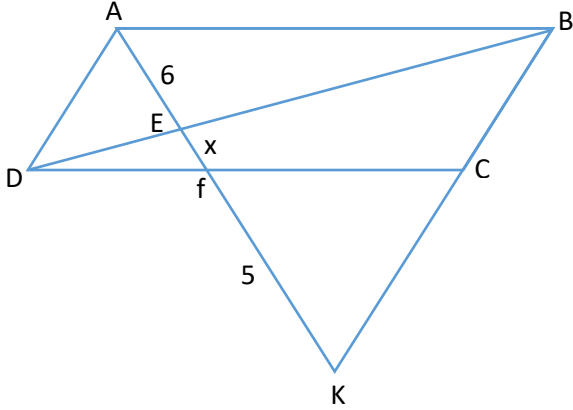
Alan , area (ABCD) = ?



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

35) ABCD paralelkenar , *parallelogram*

$$|EF| = x = ?$$



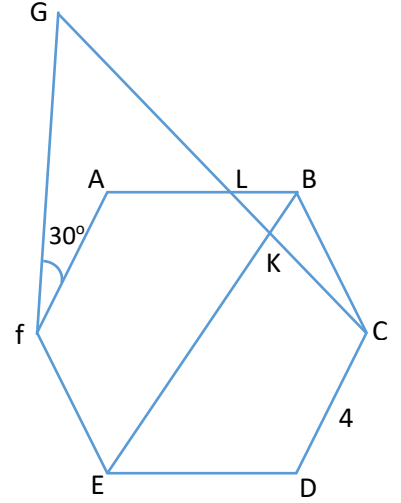
- A) 7 B) 6 C) 5 D) 4 E) 3

37) ABCDEF düzgün altıgen

ABCDEF *regular hexagon*

$$|BE| = |FG|$$

$$|GC| = ?$$

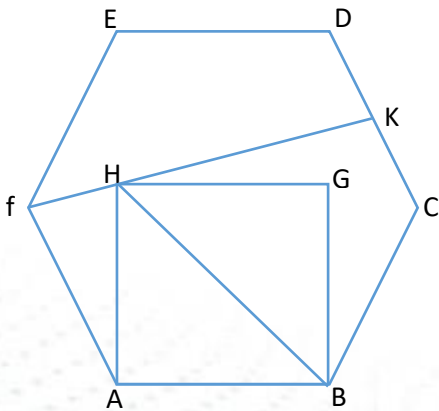


- A) $12\sqrt{2}$ B) $4\sqrt{3}$ C) $6\sqrt{2}$ D) $6\sqrt{3}$ E) $8\sqrt{2}$

36) ABCDEF düzgün altıgen, ABGH Kare

ABCDEF *regular hexagon*, ABGH *Square*

$$m(\angle BHK) = ?$$



- A) 55 B) 60 C) 65 D) 70 E) 75

38) ABC üçgen [CD] açıortay*ABC triangle [CD] a bisector*

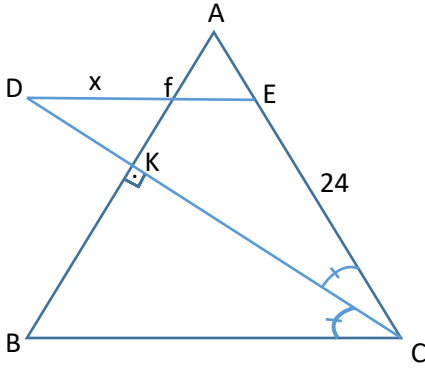
$[DE] \parallel [BC]$

$[CD] \perp [AB]$

$|BK| = 2 \cdot |KF|$

$|EC| = 24$

$|DF| = ? = x$



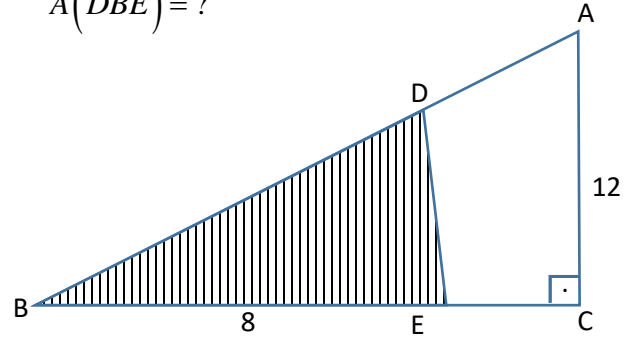
- A) 18 B) 16 C) 15 D) 14 E) 12

40) ABC dik üçgen*ABC right triangle*

$[AC] \perp [BC]$

$|BD| = 2 \cdot |DA|$

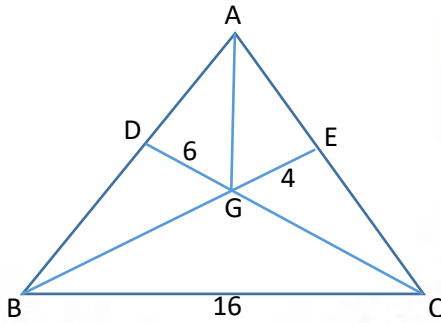
$A(DBE) = ?$



- A) 24 B) 28 C) 30 D) 32 E) 36

39) G, ABC üçgeninin kenarortaylarının kesim noktası*G is the intersection point of the medians of triangle ABC*

$\Rightarrow |AG| = ?$



- A) 12 B) $4\sqrt{10}$ C) $4\sqrt{11}$ D) $6\sqrt{5}$ E) $6\sqrt{10}$

41)

●	□	△	▲	} {	1	2	3	4
○	△	▲	□		6	3	2	4
■	▲	△	□		4	1	6	5
□	■	○	●		5	6	2	3
●	○	▲	△		5	4	3	2

● ○ ▲ △ = ?

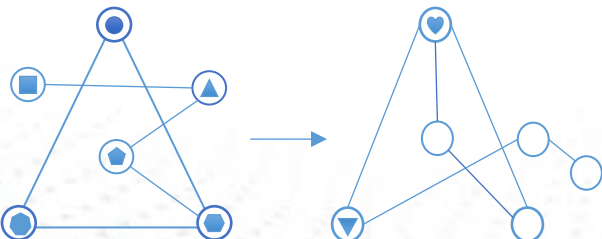
- A) 1 2 3 4 B) 6 3 2 4 C) 4 1 6 5
D) 5 6 2 3 E) 5 4 3 2

42)

A	M	O	R	} {	1426	2341	3624
K	R	A	T				
T	A	K	O				
R	O	K	A		4563	6342	
O	R	A	K				

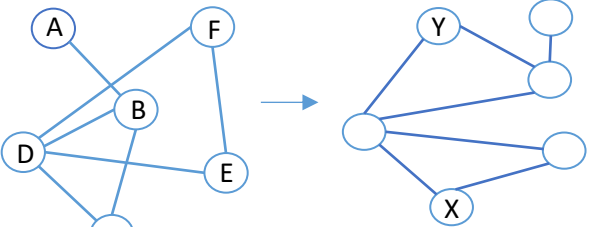
TAKO =

- A) 1 4 2 6 B) 2 3 4 1 C) 3 6 2 4
D) 4 5 6 3 E) 6 3 4 2

43) 

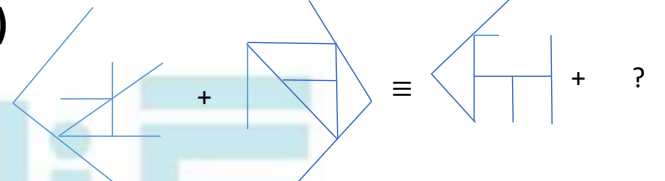
▼ = ? ♥ = ?

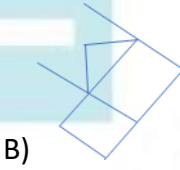
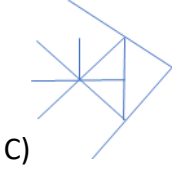
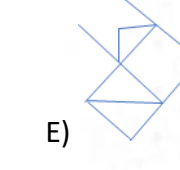
A) ▲ ; ■ B) ◆ ; ● C) ● ; ●
D) ◆ ; ■ E) ● ; ▲

44) 

X, Y = ?

A) E, B B) E, D C) B, C D) C, E E) E, C

45) 

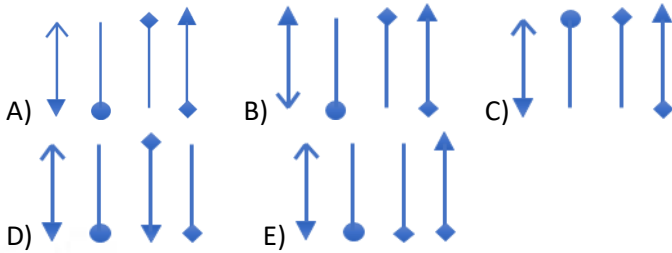
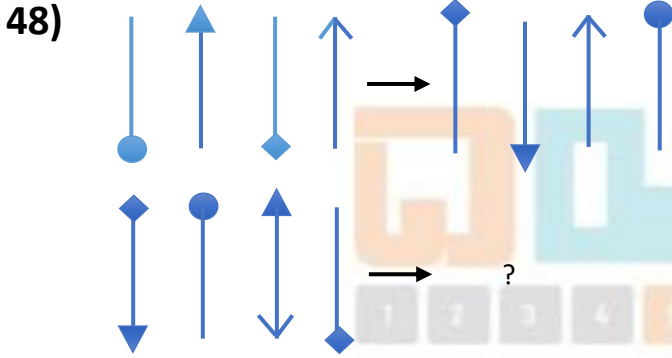
A)  B)  C) 
D)  E) 

46) $4 \# 6 = 25$
 $3 \# 2 = 31$
 $1 \# 5 = 62$
 $7 \# 2 = ?$

A) 42 B) 94 C) 86 D) 24 E) 35

47) $77 \square 41 \rightarrow 12$
 $83 \square 32 \rightarrow 17$
 $111 \square 42 \rightarrow 23$
 $77 \square X \rightarrow 16 \Rightarrow X = ?$

- A) 11 B) 13 C) 17 D) 19 E) 29



49) 1 3 2 6 11 19 36 66 ?

- A) 121 B) 106 C) 138 D) 102 E) 132

50) 16 24 35 41 36

112 144 280 205 ?

- A) 324 B) 360 C) 348 D) 352 E) 336

yanlış ifadeyi bulun.

(51, 52, 53 sorularda)

Find the wrong statement.

(in 51, 52, 53 questions)

51) 5 6 11 17 28 45 72

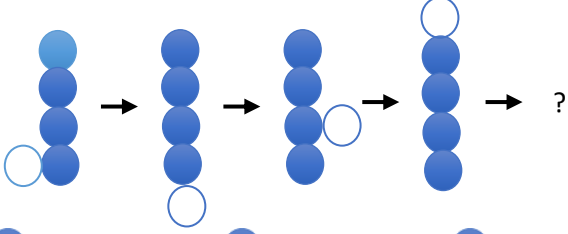
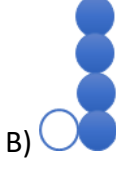
- A) 11 B) 45 C) 72 D) 17 E) 28

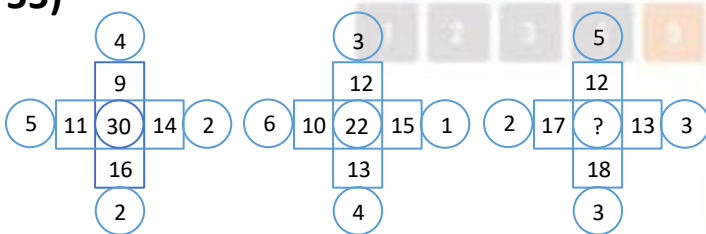
52)

$27 - 25 - 26 - 13 - 11 - 12 - 6 - 3 - 5 - 2.5$

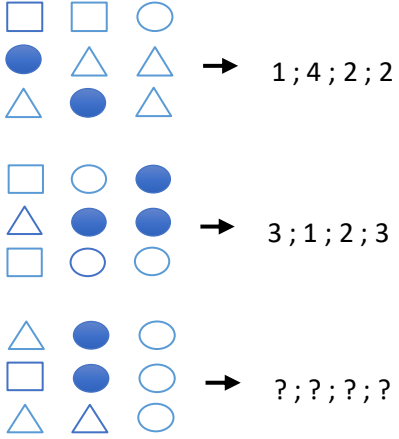
- A) 13 B) 11 C) 5 D) 3 E) 2.5

- 53) 12 84 72 35 48
A) 12 B) 84 C) 72 D) 35 E) 48

- 54) 
A)  B)  C) 
D)  E) 

- 55) 
A) 45 B) 30 C) 35 D) 25 E) 40

- 56) $68 - 48 - 24 - 40 - 20 - 10 - 26 - 6 - 3 - ? - ?$
A) 19, -1 B) 19, 0 C) 18, -1
D) 13, -5 E) 15, 21

- 57) 

- A) 3 ; 3 ; 1 ; 2 B) 3 ; 2 ; 3 ; 1 C) 2 ; 3 ; 1 ; 3
D) 3 ; 2 ; 1 ; 3 E) 2 ; 3 ; 3 ; 7

- 58)

+	a	b	c
a		c+3	
b			2a+2
c	3b+3		

 $\Rightarrow b = ?$

- A) 2 B) 8 C) 5 D) 11 E) 16

- 59)

★	5	4	8
4	K	32	64
3	30	L	48
5	50	40	M

K = ? L = ? M = ?

- A) 6 ; 12 ; 20 B) 12 ; 36 ; 80 C) 12 ; 18 ; 80
D) 12 ; 24 ; 20 E) 40 ; 24 ; 80

60)

+	a	b	c	×	a	b	c
c		12		d		8	
a			$17+3b$	e			
b	13			f			

 $\Rightarrow d = ?$

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

63)

	54	67	89
25	108		?
94		188	
82			178

- A) 175 B) 176 C) 177 D) 178 E) 179

61)

×	a	b	c
a	$\frac{c^2}{4}$		
b		$a.c-2$	
c			$a^2.b$

 $\Rightarrow a + b + c = ?$

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

64)

A B

A B

 $A = B - 4 \Rightarrow C = ?$

+ A B

C C C

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

62)

7	2	4	17
8	2	1	13
19	2	6	7
23	5	x	32

 $\Rightarrow x = ?$

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

65)

A A

A

E

+ B B

× B

× C

C C

E 0

M N

 $\Rightarrow M + N = ?$

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

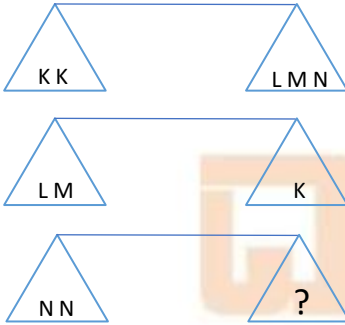
66)

$$\begin{array}{r}
 \text{ABC} \\
 \times \quad \text{DE} \\
 \hline
 \text{C9D} \\
 + \text{ED8} \\
 \hline
 3772
 \end{array}$$

$$\Rightarrow A + B + C - D.E = ?$$

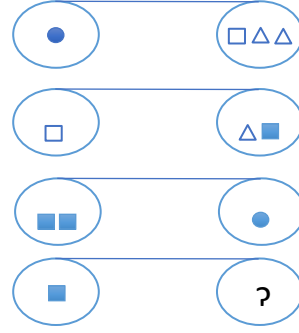
- A)1 B)2 C)4 D)5 E)3

67)



- A) K B) KK C) KKK D) KKKK E) KKKKK

68)



- A) $\square \Delta$ B) $\bullet \Delta$ C) $\Delta \Delta$ D) $\Delta \Delta \Delta$ E) $\bullet \square \square$

Dört karakterin (a,b,c,d) her biri 1'den 4'e kadar ağırlıklandırır numaralardan birine (her biri farklı bir uygun.)

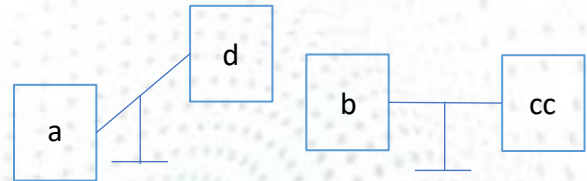
(69,70 sorularını Cevaplayınız numaraya)

Each of the four characters (a,b,c,d) is weighted to one of the numbers from 1 to 4 (each with a different suit.)

(Answer questions 69,70 to the number)

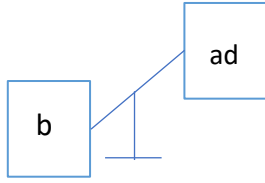
69) a'nın alabileceği değerlerin toplamını bulun

Find the sum of values that a can take



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

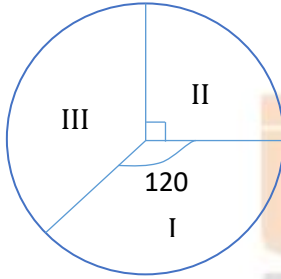
70)



$$a.d + c = ?$$

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

71)

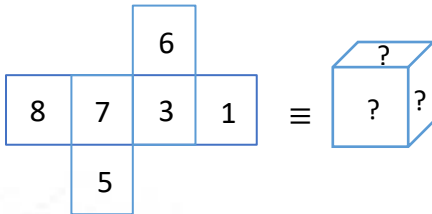


$$I + II + III = 600 \text{ kg}$$

$$III = ? \text{ kg}$$

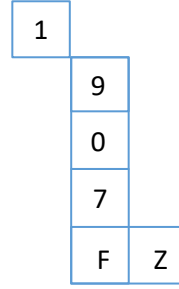
- A) 275 B) 250 C) 225 D) 200 E) 270

72)



- A) 6 ; 8 ; 3 B) 6 ; 8 ; 1 C) 7 ; 5 ; 6
D) 5 ; 1 ; 7 E) 7 ; 3 ; 8

73)



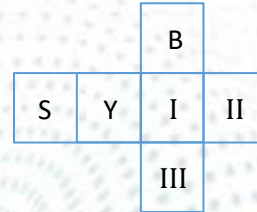
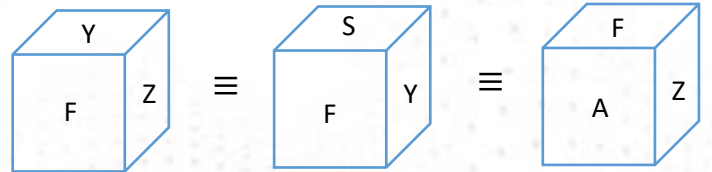
- A) B) C)
D) E)

74) Sırasıyla I,II,III 'e bakan bu küpün açılışında seçeneği doğru verilmiş mi?

In the opening of this cube, which faces I,II,III respectively. Is it correct in the option?

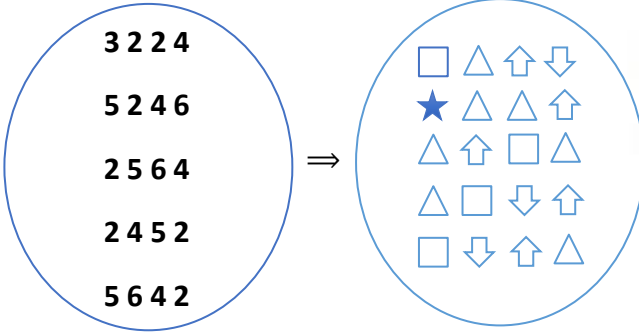
Resimde farklı görünümler gösterilmektedir

(The picture shows different views of the)



- A) Z,A,F B) F,A,Z C) Z,F,A D) F,Z,A E) A,Z,F

75)



23456=?

- A) $\triangle \star \uparrow \square \downarrow$ B) $\triangle \star \downarrow \square \uparrow$ C) $\triangle \star \square \uparrow \downarrow$
 D) $\triangle \uparrow \square \star \downarrow$ E) $\triangle \uparrow \star \square \downarrow$

76) $A, B, C \neq 0$ ve birbirinden Farklı rakamdılar.

$A, B, C \neq 0$ and different numbers.

$$\begin{array}{r}
 \begin{array}{r}
 \text{A B 5 B} \\
 - \text{C A} \\
 \hline
 \text{C C 5} \\
 - \text{C 1 B} \\
 \hline
 \text{9 B} \\
 - \text{9 B} \\
 \hline
 \text{0}
 \end{array}
 \quad
 \begin{array}{r}
 \text{C A} \\
 \hline
 19\text{A}
 \end{array}
 \end{array}$$

 $\Rightarrow A = ?$

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

77)

$$8 + 3 = 10$$

$$12 + 8 = 22$$

$$6 + 1 = 5$$

$$20 + 8 = ?$$

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

78)

$\times$	a	b	c
a			8
b			24

+	a	b	c
a		8	
b			

 $\Rightarrow b = ?$

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

79)

+	a	b	c
a	b	d	e
b	d	c	f
c	e	f	h

$\times$	a	b	c
a	a	b	c
b	b	c	h
c	c	h	m

 $h + c + m - e = ?$

- A) 20 B) 24 C) 21 D) 23 E) 22

80)

$$114 - 118 - 126 - 138 - 162 - 174 - 202 - ?$$

- A) 206 B) 315 C) 224 D) 202 E) 214

گزینه ۵

1 2 3 4 5

گزینه ۵، با همراهی اساتید به نام آزمون یوس ایران تشکیل شد. ما همه مولفین و اعضای تیم گزینه ۵ کنار شما هستیم تا یک جامعه آماری بزرگ با برنامه ریزی اصولی و هدفمند پله پله باعث ارتقای آموزش شما در آزمون یوس باشیم.

برای رسیدن به این هدف بسیار مصمم هستیم. به امید دیدن موفقیت تک تک شما عزیزان.