ÇÖZÜMLER

1. 2 6 21 88 ?

2.2 + 2 = 6

6.3 + 3 = 21

21.4 + 4 = 88

88.5 + 5 = 445 bulunur.

Cevap: D

2.

I. 4 12 10 30 28

x3 –2 x3 –2

II. 13 26 23 46 43

x2 –3 x2 –3

III. 14 10 30 26 78

–4 x3 –4 x3

IV. 8 5 20 17 68

–3 x4 –3 x4

Cevap: E

3. Son harf E üç adet rakamlarda E = 5 İ = 3 bulunur.

Başta iki adet H var rakamlarda H = 7 olur.

H İ L E → 7 3 4 5 L = 4

H A L E → 7 2 4 5 A = 2

A İ L E → 2 3 4 5

M A V İ → 8 2 1 3 M = 8 , V = 1

Y E N İ → 6 5 9 3 Y = 6 , N = 9

Cevap: E

4.

I.	II.	III.
185	106	148
163 207	91 121	208 K

alt kutuları topla 2'ye böl

$$\frac{163+207}{2} = \frac{370}{2} = 185$$

$$\frac{91+121}{2} = \frac{212}{2} = 106$$

$$\frac{208+K}{2} = 148$$

208 + K = 296

K = 296 – 208

K = 88 bulunur.

Cevap: A

5. ◐ → çarpma , △ → toplama

11 △ (2 ◐ 9) = 11 △ 18 = 29

9 △ (6 ◐ 8) = 9 △ 48 = 57

16 △ (9 ◐ 4) = 16 △ 36 = 52

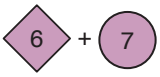
5 △ (11 ◐ 4) = 5 △ 44 = 49 bulunur.

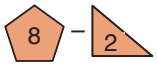
Cevap: D

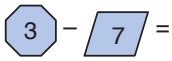
Diğer Sayfaya Geçiniz.

6.

I.  = 9

II.  = 4

III.  = 12

IV.  = ?

$4 + 3 = 7$, $4 - 2 = 2$ } $7 + 2 = 9$

$6 + 4 = 10$, $1 - 7 = -6$ } $10 - 6 = 4$

$5 + 8 = 13$, $3 - 2$ } $13 - 1 = 12$

$8 + 3 = 11$, $4 - 7 = -3$ } $11 - (-3) = 14$

Cevap: D

7.

1. satır — 1 sayı

2. satır — 2 sayı

3. satır — 3 sayı

⋮

n. satır — + n sayı

n. satırının sonuna kadar toplam → $1 + 2 + 3 + \ldots + n$

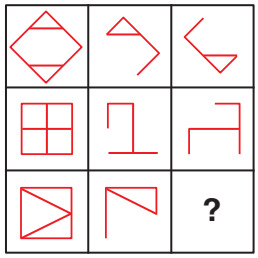
$= \dfrac{n.(n+1)}{2}$ sayı

$= \dfrac{n.(n+1)}{2} \cong 49$

$\Rightarrow$ n = 10 olur.

Cevap: D

8.



II ve III. şeklin birleşimi I. şekil olmakta

Cevap: C

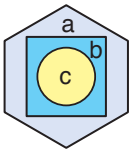
9.

$$\begin{array}{r|l} KL4 & KL \\ -\ KL & \overline{10} \\ \hline 004 & \end{array}$$

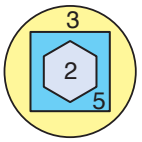
a + b = 10 + 4 = 14 bulunur.

Cevap: E

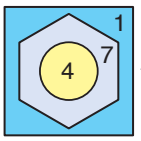
10.



$\rightarrow \dfrac{2(c^2+b)+a}{2}$



$\rightarrow \left[2\left(5+\dfrac{2}{2}\right)+3\right]^2 = 225$



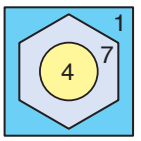
$\rightarrow$?

$\rightarrow$ içindekinin karesi

$\rightarrow$ içindekilerin toplamının 2 katı

$\rightarrow$ içindekilerin toplamının yarısı

O halde



$$2\left(\left(\frac{4^2+7}{2}\right)+1\right) = 2\cdot\frac{23}{2}+2$$

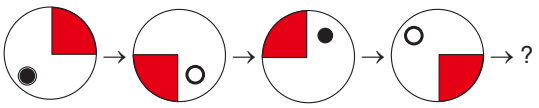
$$= 23 + 2$$

$$= 25$$

bulunur.

Cevap: B

11. I. II. III. IV.



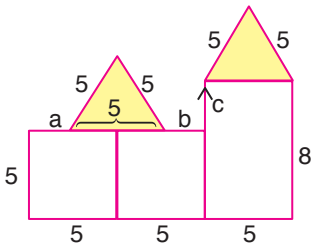
$\rightarrow$?

● $\rightarrow$ bir adım saat yönü ters ilerliyor bir siyah bir beyaz olmakta

$\rightarrow$ bir adımda bir dilim ikinci adımda 2 dilim ilerlemekte.

Cevap: E

12.



$c = 8 - 5 = 3$

$a + b = 10 - 5 = 5$

Çevre $= 8.5 + a + b + c + 8$

$= 40 + 5 + 3 + 8$

$= 56$

Cevap: E

13. I. II. III. IV.

$\rightarrow$?

Şekiller birlikte saat yönünde döndürülmekte.

Cevap: A

14. I. $a \bullet b = 5a + 2b$

II. $a \bullet b = 4(a \star b) + 2$

III. $4 \star 5 = ?$

$4 \bullet 5 = 4\,(4 \star 5) + 2$

$5.4 + 2.5 = 4(4 \star 5) + 2$

$30 - 2 = 4(4 \star 5)$

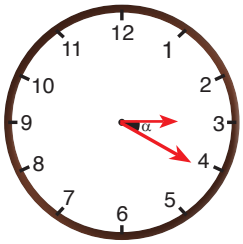
$\dfrac{28}{4} = 4 \star 5$

$7 = 4 \star 5$ bulunur.

Cevap: B

Diğer Sayfaya Geçiniz.

15.



$$\alpha = \left| \frac{\text{11. dakika} - \text{60. saat}}{2} \right|$$

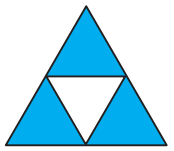
$$\alpha = \left| \frac{11.20 - 60.3}{2} \right|$$

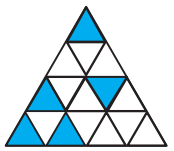
$$\alpha = \left| \frac{220 - 180}{2} \right|$$

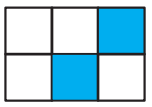
$\alpha = |-20| = 20°$ bulunur.

Cevap: B

16.

I.  $\rightarrow \frac{3^3 + 1^2}{4.3} = \frac{7}{3}$

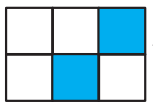
II.  $\rightarrow \frac{123}{40}$

III.  $\rightarrow ?$

taralı şekil sayısının küpü

\+ taralı olmayan şekil sayısının karesi

şekil sayısı x taralı şekil sayısı

 $\rightarrow \frac{2^3 + 4^2}{6.2}$

$= \frac{8+16}{12} = \frac{24}{12} = 2$

Cevap: E

17.

+	a	b	c
a			30
b			
c			

x	a	b	c
a		112	
b			128
c			

I tablodan

$a + c = 30$

II. tablodan

$a.b = 112$

\+ $b.c = 128$

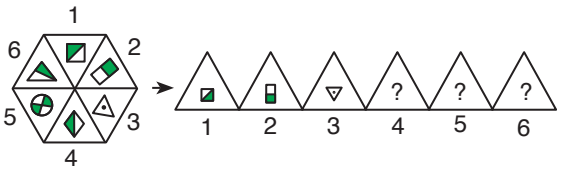
$b(\underbrace{a + c}_{30}) = 240$

$b = 8$

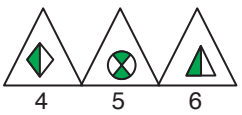
Cevap: E

18.

I. II.

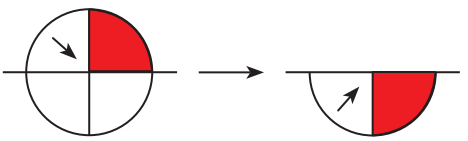


Şeklimiz düzenlendiğinde

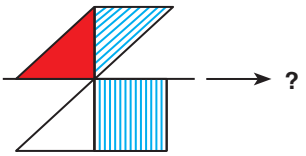


Cevap: A

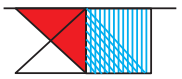
19. I.



II.

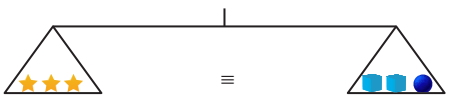


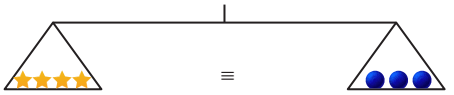
x eksenine göre simetri kısacası üstteki şekil simetri şekilde alttakinin üstüne düşmekte.

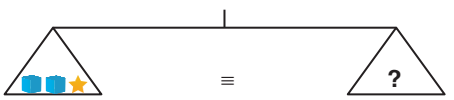


Cevap: D

20.

I. 

II. 

III. 

3★ = ●●●

↓ ↓ ↓ ↓

6 5 5 8

4★ = 3●

↓ ↓

6 8

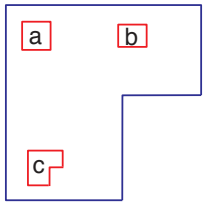
●● ★

↓ ↓ ↓

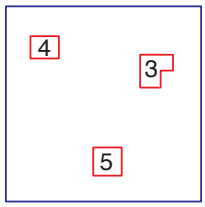
5+5+6 = 16

B) ●● = 8 + 8 = 16

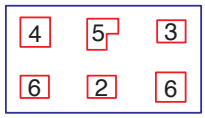
Cevap: B

21. I. 

$\Rightarrow \frac{3}{4}\left(a+\frac{b}{2}+\frac{3c}{4}\right)$

II. 

$\Rightarrow \left(5+\frac{4}{2}+\frac{3.3}{4}\right)=\frac{37}{4}$

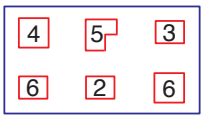
III. 

$\Rightarrow$ **??**

□ → içi

□ → içinin yarısı

⌐ → içinin toplamının $\frac{3}{4}$'ü



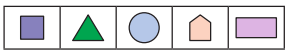
$$\frac{4+5\cdot\frac{3}{4}+\frac{3}{2}+\frac{6}{2}+\frac{2}{2}+6}{2}$$

$$\frac{4+\frac{15}{4}+\frac{11}{2}+6}{2}=\frac{40+15+22}{\frac{4}{2}}$$

$$=\frac{77}{8}$$

Cevap: A

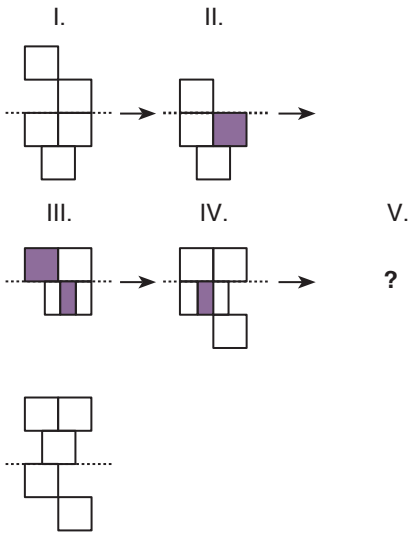
22. Şekiller 2 kare sağa kayıyor.



Cevap: B

Diğer Sayfaya Geçiniz.

23.



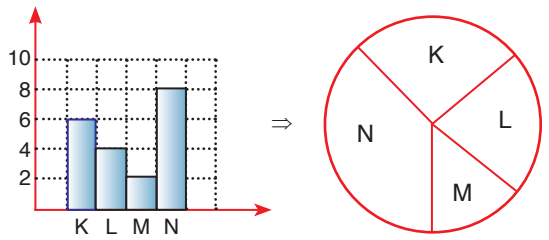
Cevap: D

24.

Üstten bakınca C seçeneği gözükür.

Cevap: C

25.



K° = ? **L° = ?** **M° = ?** **N° = ?**

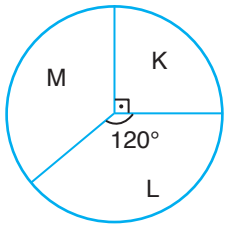
K = 6a
L = 4a
M = 2a
\+ N = 8a
20a = 360°
a = 18°

K = 6.18 = 108°
L = 4.18 = 72°
M = 2.18 = 36°
N = 8.18 = 144°

Cevap: D

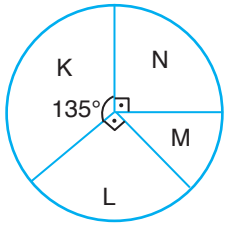
26.

I.



⇒ K = 3k, L = 4k, M = 5k

II.



⇒ **K = ?k, L = ?k, M = ?k, N = ?k**

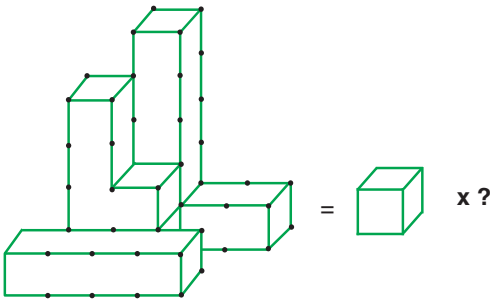
K = 3k L = 4k M = 5k
K = 90° M = 150°
4K = 120°
K = 30°

II. şekilde

K = 135° M = 45° N = 90° L = 90°
K = 3k M = K N = 2K L = 2K

Cevap: C

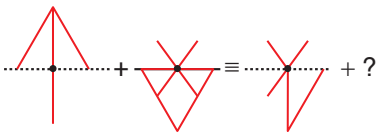
27.



Şekildeki noktaları birleştirdiğimizde 17 küp elde edilmekte

Cevap: A

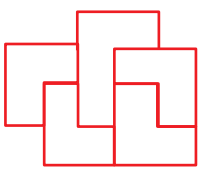
28.



Sağ tarafta eksik olan şekil

Cevap: E

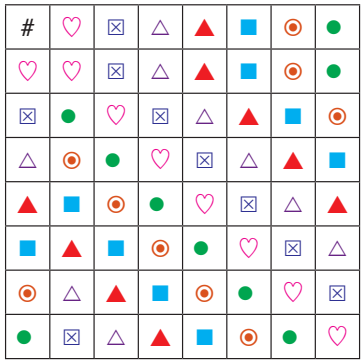
29.



5 parça var.

Cevap: B

30.



▲

[(● # △) # ?] # (⊙ # ▲) = ▲

△ # ⊙

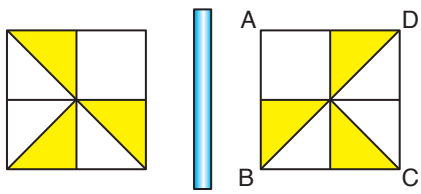
▲ # ? = △

↓

⊙ olur.

Cevap: A

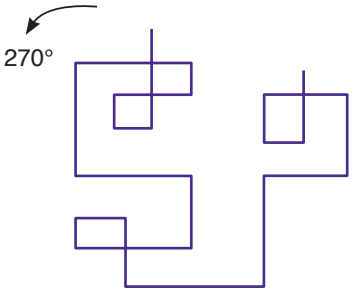
31.



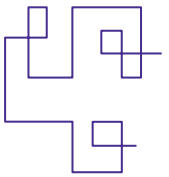
Cevap: B

Diğer Sayfaya Geçiniz.

32.

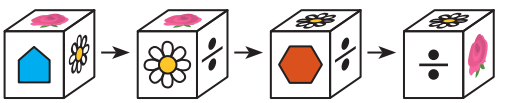


270° sola çevrildiğinde



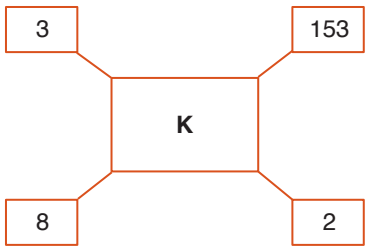
Cevap: D

33.



Cevap: A

34.



b = 3 $a^2 + b^2 = 153$ $b^2 - c^2 = 8$ d = 2

$a^2 + 9 = 153$ $9 - c^2 = 8$

$a^2 = 144$ $1 = c^2$

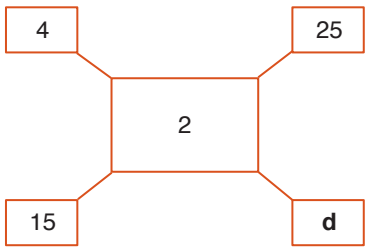
$a = 12$ $1 = c$

$$K = \frac{a+b+c}{d^2} = \frac{12+3+1}{2^2} = \frac{16}{4}$$

$$= 4$$

Cevap: D

35.



b = 4 $a^2 + b^2 = 25$ $b^2 - c^2 = 15$ d = ?

$a^2 + 4^2 = 25$ $16 - c^2 = 15$

$a^2 = 9$ $1 = c^2$

$a = 3$ $1 = c$

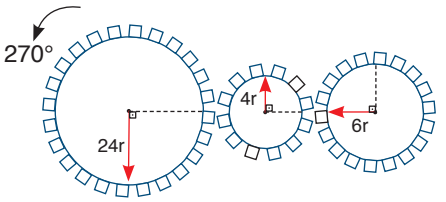
$$K = \frac{a+b+c}{d^2}$$

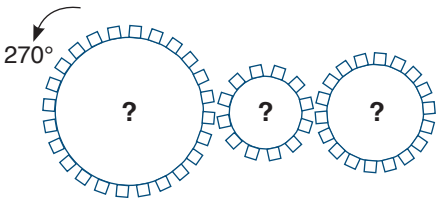
$$2 = \frac{3+4+1}{d^2} \Rightarrow d^2 = \frac{8}{2} = 4 = 2^2$$

$$d = 2$$

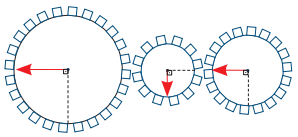
Cevap: B

36.



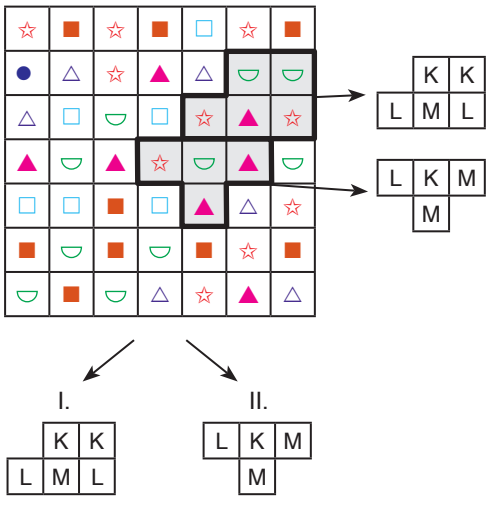


E)



Cevap: E

37.

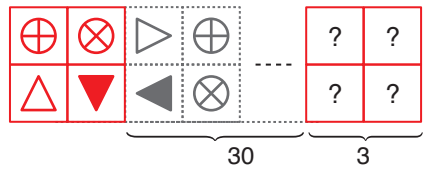


K = ⌓ L = ☆

M = ▲

Cevap: E

38.



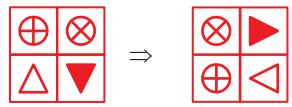
→ 33 br ilerliyor.

33:3 = 11 çeyrek tur.

⇒ 11 | 4 → 4 çeyrek tam tur

− 8 | 2

3 → 3 çeyrek tur çevirmek yeter

→ 

Cevap: C

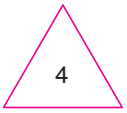
39.

★			
I.	1	0	2
II.	4	1	0
III.	0	1	0
IV.	0	2	2

I =  II = △ III =  IV = ◺

Cevap: D

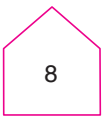
Diğer Sayfaya Geçiniz.

40. I. 

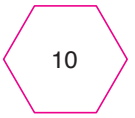
$\Rightarrow 1$

II. 

$\Rightarrow 0$

III. 

$\Rightarrow 27$

IV. 

$\Rightarrow ?$

I. $(($Şeklin içindeki sayı$)$ – $($Şeklin kenar sayısı$))^3$
$= (4-3)^3 = 1$

II. $(4-4)^3 = 0$

III. $(8-5)^3 = 3^3 = 27$

IV. $(10-6)^3 = 4^3 = 64$

Cevap: D

41. $1-\dfrac{1}{1-\dfrac{2}{1-\dfrac{1}{3}}}:\dfrac{1}{3}$

$= 1-\dfrac{1}{1-\dfrac{2}{\dfrac{2}{3}}}:\dfrac{1}{3}$

$= 1-\dfrac{1}{1-3}:\dfrac{1}{3}$

$= 1+\dfrac{1}{2}\cdot\dfrac{3}{1}$

$= 1+\dfrac{3}{2} = \dfrac{5}{2}$

Cevap: B

42. $\dfrac{12}{0,009}:\left(\dfrac{0,03-0,003}{0,6}\right)^{-1}$

$= \dfrac{12}{0,009}:\left(\dfrac{0,027}{0,6}\right)^{-1}$

$= \dfrac{12000}{9}:\left(\dfrac{600}{27}\right)$

$= \dfrac{120\cancel{0}\cancel{0}}{\cancel{9}}\cdot\dfrac{\cancel{3}}{6\cancel{0}\cancel{0}}$

$= 60$

Cevap: E

43. $16^{a-2b} = 1$

$81^{a+2b} = \dfrac{1}{9}$ $\quad b = ?$

- $4^{2a-4b} = 4^0 \quad \Rightarrow \quad 2a-4b = 0$
- $9^{2a+4b} = 9^{-1} \quad \Rightarrow \quad 2a+4b = -1$

O halde

$-1/ \quad 2a-4b = 0$
$\quad\quad 2a+4b = -1$
$\quad -\cancel{2a}+4b = 0$
$\quad\quad \cancel{2a}+4b = -1$

$8b = -1$

$b = \dfrac{-1}{8}$

Cevap: B

44. $\sqrt{\dfrac{9}{25}-\dfrac{3}{5}+\dfrac{1}{4}} = ?$

$\sqrt{\left(\dfrac{3}{5}-\dfrac{1}{2}\right)^2} = \left|\underset{(2)}{\dfrac{3}{5}}-\underset{(5)}{\dfrac{1}{2}}\right|$

$= \dfrac{1}{10}$ bulunur.

Cevap: A

45. $\dfrac{2^{502}+2^{501}+2^{500}}{2^{-504}+2^{-503}+2^{-502}} = \dfrac{2^{500}(2^2+2^1+1)}{2^{-504}(1+2^1+2^2)}$

$= 2^{500+504}$

$= 2^{1004}$ bulunur.

Cevap: E

46. $\dfrac{\sqrt{x.z}}{a} = 3$

$\dfrac{\sqrt{x.y}}{b} = 5$

x $\dfrac{\sqrt{y.z}}{c} = 7$

$\dfrac{\sqrt{x^2.y^2.z^2}}{a.b.c} = 3.5.7$

$\dfrac{x.y.z}{a.b.c} = 105$ bulunur.

Cevap: D

47. $a = \sqrt{(1-\sqrt{3})^2} = \underbrace{|1-\sqrt{3}|}_{<0,\ -} = -1+\sqrt{3}$

$b = \sqrt{(\sqrt{3}-\sqrt{12})^2} = \sqrt{(\sqrt{3}-2\sqrt{3})^2} = \sqrt{(-\sqrt{3})^2} = \sqrt{3}$

$a + b = -1 + \sqrt{3} + \sqrt{3} = 2\sqrt{3} - 1$

Cevap: B

48. $\dfrac{\sqrt{a}}{\underbrace{\sqrt{a}+\sqrt{b}}_{(\sqrt{a}-\sqrt{b})}} + \dfrac{\sqrt{b}}{\underbrace{\sqrt{a}-\sqrt{b}}_{(\sqrt{a}+\sqrt{b})}} = \dfrac{5}{4}$

$\dfrac{a-\sqrt{a.b}+\sqrt{a.b}+b}{a-b} = \dfrac{5}{4}$

$\dfrac{a+b}{a-b} = \dfrac{5}{4}$

$5a - 5b = 4a + 4b$

$a = 9b$

$\dfrac{a}{b} = 9$ bulunur.

Cevap: A

49. $(x^2+y^2)^2 = (\sqrt{7})^2$

$x^4 + y^4 + 2.x^2.y^2 = 7$

$x^4 + y^4 + 2.\underbrace{(x.y)^2}_{1} = 7$

$x^4 + y^4 = 5$

$(x^2-y^2)^2 = x^4 + y^4 - 2x^2.y^2$

$= 5 - 2 = 3$

$x^2 - y^2 = \sqrt{3}$

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

$= \sqrt{3}.\sqrt{7}$

$= \sqrt{21}$ bulunur.

Cevap: C

50. $|x-2| < 3 \Rightarrow -3 < x-2 < 3$

$-1 < x < 5$

$\underbrace{|x+3|}_{x>0} + \underbrace{|x-5|}_{x<0} + \underbrace{|x-6|}_{x<0}$

$= x + 3 - x + 5 - x + 6$

$= 14 - x$

Cevap: B

51. $3 + \dfrac{7}{\underbrace{2 - \dfrac{9}{x+3}}_{-7}} = 2 \quad \Rightarrow \quad x = ?$

$2 - \dfrac{9}{x+3} = -7$

$2 + 7 = \dfrac{9}{x+3} \Rightarrow \dfrac{9}{1} = \dfrac{9}{x+3}$

$x + 3 = 1 \Rightarrow \boxed{x = -2}$

Cevap: B

TASARI EĞİTİM YAYINLARI

Diğer Sayfaya Geçiniz.

52.
$$\begin{array}{rl} -2/ & 3a - 3b + 4c = 7 \\ & 2a - 6b + 8c = 2 \\ \hline & -6a + 6b - 8c = -14 \\ + & 2a - 6b + 8c = 2 \\ \hline & -4a = -12 \\ & a = 3 \end{array}$$

Cevap: A

53. $\underbrace{1-4}_{-3} + \underbrace{2-5}_{-3} + \underbrace{3-6}_{-3} + \ldots + \underbrace{17-20}_{-3} = A$

Terim sayısı : $\frac{17-1}{1} + 1 = 17$

O halde

$A = -3.17 = -51$ bulunur.

Cevap: E

54. $(63)_{10} = (223)_m$

$6.10^1 + 3.10^0 = 2.m^2 + 2.m^1 + 3.m^0$

$60 + 3 = 2m^2 + 2m + 3$

$2m^2 + 2m - 60 = 0$

$m^2 + m - 30 = 0$

$(m + 6)(m - 5) = 0$

$m = -6$ ve $m = 5$

Cevap: B

55.
$$\begin{array}{rcc} & A & B \\ - & & 3 \\ \hline & 2 & \end{array} \qquad \begin{array}{rcc} & B & 4 \\ - & & c \\ \hline & 2 & \end{array}$$

$A = 3B + 2$ $\qquad B = 4c + 2$

$A = 3(4c + 2) + 2$

$A = 12c + 8$

$\downarrow$

1

$\min(A) = 20$ bulunur.

Cevap: C

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

$3a = 4b$

$\frac{a}{b} = \frac{4k}{3k}$ $\qquad \frac{b}{c} = \frac{3k}{8k}$

O halde $k = 1$ için

$a = 4$, $\quad b = 3$, $\quad c = 8$

$\min(a + b + c) = 4 + 3 + 8 = 15$ bulunur.

Cevap: D

57. $\frac{(n-2)!}{(n+1)!} = \frac{1}{336}$

$\frac{(n-2)!}{(n-2)!(n-1).n.(n+1)} = \frac{1}{336}$

$(n - 1).n.(n + 1) = 336$

$6.7.8 = 336$

$n = 7$

Cevap: C

58. x, y birer tamsayı

$\left.\begin{array}{l} -3 \le x < 8 \\ -6 < y \le 14 \end{array}\right\}$ max(2x – 3y) = ?

x ve y tamsayı olduğu için değer veririz.

$x \to max \quad y \to min$ olmalı

$-3 \le x < 8 \;\to\; max(x) = 7$

$-6 < y \le 14 \;\to\; min(y) = -5$

$\Rightarrow max(2x - 3y) = 2.7 - 3.(-5)$

$= 14 + 15$

$= 29$

Cevap: D

59. $\underset{(3)}{\frac{a}{b}} = \underset{(-2)}{\frac{c}{d}} = \underset{(1)}{\frac{e}{f}} = \frac{1}{6}$

$$\frac{3a - 2c + e}{3b - 2d + f} = \frac{1}{6}$$

$$\frac{4}{3b - 9} = \frac{1}{6}$$

$3b - 9 = 24$

$3b = 33$

$b = 11$

$\frac{a}{b} = \frac{1}{6}$

$\frac{a}{11} = \frac{1}{6} \Rightarrow a = \frac{11}{6}$ bulunur.

Cevap: B

60. $A = \{x / x < 100, \quad x = 2n, \quad n \in Z^+\}$

$B = \{x / x < 151, \quad x = 3n, \quad n \in Z^+\}$

$A = \{2, 4, 6, 8, 10, \ldots, 98\}$

$B = \{3, 6, 9, \ , 150\}$

$S(A \cup B) - S(A) + S(B) - S(A \cap B)$

A kümesinin eleman sayısı : $\frac{98 - 2}{2} + 1 = 49$

B kümesinin eleman sayısı: $\frac{150 - 3}{3} + 1 = 50$

$A \cap B = \{6, 12, 18, \ldots, 96\}$

$A \cap B$ kümesinin eleman sayısı : $\frac{96 - 6}{6} + 1 = 16$

$S(A \cup B) = 49 + 50 - 16$

$= 83$ bulunur.

Cevap: D

61. $x - \frac{1}{y} = 5 \;\to\; x.y - 1 = 5y$

$y - \frac{1}{x} = 4 \;\to\; x.y - 1 = 4x$

$5y = 4x$

$\downarrow \quad \downarrow$

$4k \quad 5k$

$x = 5k$ ve $y = 4k$

$\frac{x + y}{x - y} = \frac{5k + 4k}{5k - 4k} = \frac{9k}{k} = 9$ bulunur.

Cevap: C

Diğer Sayfaya Geçiniz.

62. $(x^2-1):\dfrac{1-\frac{1}{x}}{1+\frac{1}{x}}$

$(x^2-1):\dfrac{\frac{x-1}{x}}{\frac{x+1}{x}}$

$(x^2-1):\dfrac{(x-1x+1)}{}$

$\cancel{(x-1)}\cdot(x+1)\cdot\dfrac{x+1}{\cancel{(x-1)}}=(x+1)^2$ bulunur.

Cevap: E

63. $\left(a-\frac{1}{a}\right)^2=(2\sqrt{15})^2$ $\qquad$ $\left(a+\frac{1}{a}\right)^2=(x)^2$

$a^2+\frac{1}{a^2}-2=60$ $\qquad$ $a^2+\frac{1}{a^2}+2=x^2$

$a^2+\frac{1}{a^2}=62$ $\qquad$ $62+2=x^2$

$64=x^2$

$\boxed{8=x}$

bulunur.

Cevap: C

64. $2x+1\equiv 6 \pmod 7$

$x=6$ için

$13\equiv 6 \pmod 7$

Cevap: D

65. $f\left(1+\frac{x}{8}\right)=\frac{x}{2}-1$

$f^{-1}\left(\frac{x}{2}-1\right)=1+\frac{x}{8}$

$(gof^{-1})(3)=gof^{-1}(3)$

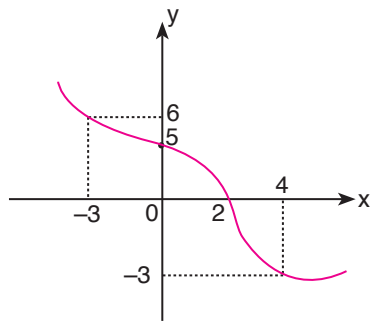
$x=8$ için

$f^{-1}(3)=1+\frac{8}{8}=2$

$g(2)=3x+1=6+1=7$ bulunur.

Cevap: C

66.



$f(-3)=6$ olduğundan $f^{-1}(6)=-3$'tür.

$f^{-1}(6)=f(x-1)\rightarrow f(x-1)=-3$ için $f(4)=-3$ olmak üzere

$x-1=4\rightarrow x=5$ bulunur.

Cevap: A

67. $x^2-(2a-b)x-2a=0$ denkleminin kökleri $x_1=a$ ve $x_2=b$ olmak üzere;

$x_1+x_2=\frac{-b}{a}\rightarrow a+b=\frac{2a-b}{1}\rightarrow 2b=a$ bulunur.

$x_1.x_2=\frac{c}{a}\rightarrow \cancel{a}.b=\frac{-2\cancel{a}}{1}$ ise $b=-2$ ve $2b=a$ için

$a=-4$ bulunur.

$a=-4$ ve $b=-2$ için;

$x^2+6x+8=0$ denklemi yazılır.

$\Delta=b^2-4ac=36-4.1.8=36-32=4$ bulunur.

Cevap: A

68.

$$\begin{array}{r|l} Q(x) & x-3 \\ \hline - & \\ \hline 2 & \end{array}$$

$\rightarrow$ $Q(x) = (x-3).B(x) + 2$ yazılabilir.
Bu ifadede x yerine x + 2 yazılırsa;
$Q(x+2) = (x-1).B(x+2) + 2$ olur.

$P(x+1) = 2x.Q(x+2) + 5$ eşitliğinde $Q(x+2)$ yerine bulunan ifade yazılırsa;

$P(x+1) = 2x.((x-1).B(x+2) + 2) + 5$ elde edilir.

$x = 1$ için;

$P(2) = 2(0.B(3) + 2) + 5$?? $P(2) = 2.2 + 5 = 9$ bulunur.

Cevap: D

69. $P(x) = mx^4 + x^3 + nx - 2$

$$\begin{array}{r|l} P(x) & x^2-1 \\ \hline - & \\ \hline 0 & \end{array}$$

$x^2 = 1$ yazılırsa sonuç 0 olmalıdır.

$m.(x^2)^2 + x^2.x + nx - 2 = 0$
(1 ve 1)

$m + x + nx - 2 = 0$ $\quad m - 2 = 0$ $\quad n = -1$

$m = 2$

$\Rightarrow m + n = 1$

Cevap: D

70. $f(2\sqrt{2}) + f(2\sqrt{3}) + f(4)$

$\downarrow \quad \downarrow \quad \downarrow$

$\sqrt{8} \quad \sqrt{12} \quad \sqrt{16}$

$\downarrow \quad \downarrow \quad \downarrow$

$(\sqrt{8})^2 + (\sqrt{12}.\sqrt{3}) + (4-10)$

$8 + 6 - 6 = 8$

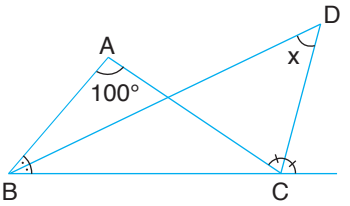
Cevap: E

71. $a_n = \dfrac{2^n.(n-1).(n-2)!}{(n-2)!.3^n.2^n} = \dfrac{n-1}{3^n}$

$\dfrac{a_{k+1}}{a_k} = \dfrac{k}{3^k.3} \cdot \dfrac{3^k}{k-1} = \dfrac{k}{3(k-1)}$

Cevap: A

72.

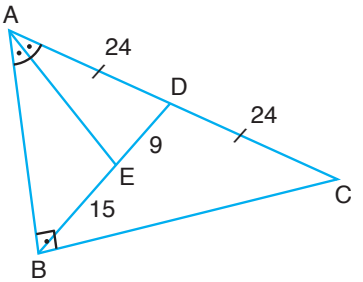


$x = \dfrac{100}{2}$

$x = 50°$

Cevap: A

73.



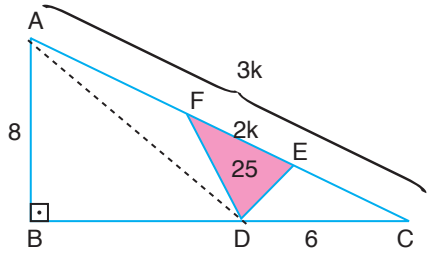
$\dfrac{x}{15} = \dfrac{24}{9}$ (15 = 5.3, 24 = 8.3, 9 = 3.3)

$= x = 40$

Cevap: B

Diğer Sayfaya Geçiniz.

74.



$A(\widehat{ADC}) = \frac{8.6}{2} = 24$

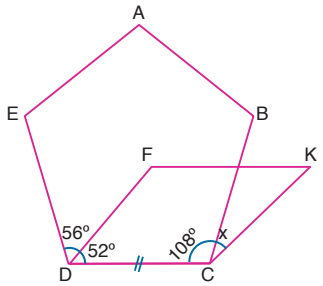
$3S = 24 \quad S = 8$

$2S = A(FDE)$

$2.8 = 16$

Cevap: A

75.



- ABCDE düzgün beşgen olduğundan

  $m(\widehat{EDC})=108^o$

- $m(\widehat{EDC}) = m(\widehat{EDF}) + m(\widehat{FDC})$

  $108^o = 56^o + m(\widehat{FDC})$

  $m(\widehat{FDC}) = 52^o$ olur.

- FKCD paralel kenar olduğundan,

  $m(\widehat{FDC}) + m(\widehat{DCK}) = 180^o$

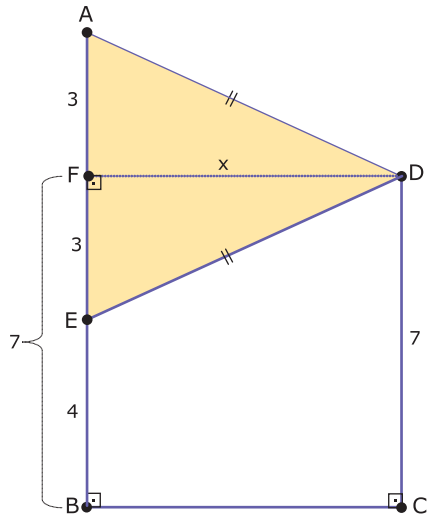
  $52^o + 108^o + x = 180^o$

  $160^o + x = 180^o$

  $x = 20^o$ olur.

Cevap: A

76.



[DF] dik doğru parçası çizilirse, DAE ikizkenar üçgenine ait yükseklik belirlenir.

Böylece $|FE| = |AF| = 3$ cm olur.

$|FD| = x$ olsun.

ADE alanı 48 cm^2 olduğundan

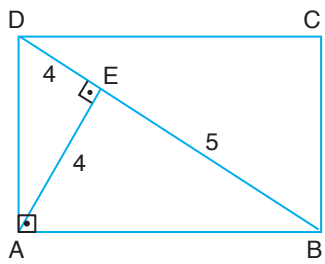
$48 = \frac{6.x}{2}$ cm $\Rightarrow$ $x = 16$ cm dir.

BEDC yamuğunun alanı

$\frac{(4+7).16}{2} = 11.8 = 88$ cm^2 bulunur.

Cevap: E

77.



$h^2 = 4.5$

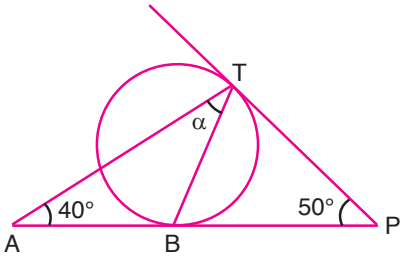
$h = 2\sqrt{5}$

$A(ABD) = \frac{2\sqrt{5}.9}{2} = 9\sqrt{5}$

$A(ABCD) = 2.9\sqrt{5} = 18\sqrt{5}$

Cevap: A

78.



$(\widehat{APT})$ üçgeninde $m(\widehat{ATP}) = 90°$dir.

Bu nedenle $m(\overset{\frown}{CTB}) = 180°$dir.

Çevre açıdan $m(\overset{\frown}{CB}) = 2\alpha$'dır.

$m(\overset{\frown}{TB}) + 50° = 180°$

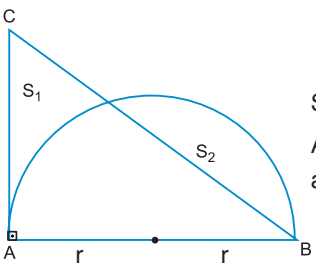
$m(\overset{\frown}{TB}) = 130°$

$130° + 2\alpha = 180° \rightarrow 2\alpha = 50°$

$\alpha = 25°$

Cevap: C

79.



$|AB| = 2r$ olsun.

$S_1 = S_2$ olduğundan

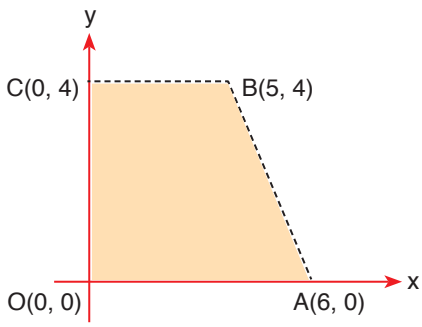
A(ABC) = yarım dairenin alanı

$$\frac{6.2r}{2} = \frac{\pi r^2}{2} \Rightarrow r = \frac{12}{\pi}$$

$$|AB| = 2r = 2.\frac{12}{\pi} = \frac{24}{\pi}$$

Cevap: A

80.



Yamuk Alanı = $\frac{\text{(Alt taban + Üst taban)}}{2}$. Yükseklik

$$A = \frac{(6+5)}{\cancel{2}} \cdot \cancel{4} = 22$$

Cevap: B

Diğer Sayfaya Geçiniz.