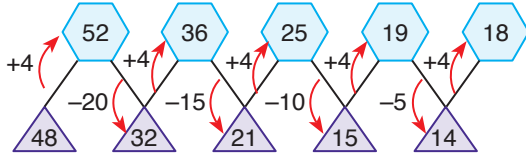


Bu testte cevaplayacağınız toplam soru sayısı 80'dir.

1.



$$A + B = 14 + 18 = 32 \text{ bulunur.}$$

Cevap: D

2. $a^2 \bullet 2b = a - b$

$$a \blacksquare b = \frac{a \cdot b}{2}$$

$$9 \bullet 2 = ?$$

$$a^2 = 9 \Rightarrow a = 3 \text{ ve } 2b = 2 \Rightarrow b = 1$$

$$9 \bullet 2 = 3 - 1 = 2$$

$$2 \blacksquare 3 = ?$$

$$2 \blacksquare 3 = \frac{2 \cdot 3}{2} = 3 \text{ bulunur.}$$

Cevap: D

3. I. tablodan

$$a + c = 13$$

II. tablodan

$$a \cdot b = 18$$

$$+ \quad b \cdot c = 8$$

$$b(a + c) = 26$$

$$13$$

$$b = 2$$

$$a \cdot 2 = 18 \Rightarrow a = 9$$

$$2 \cdot c = 8 \Rightarrow c = 4$$

O halde

$$a \cdot b \cdot c = 9 \cdot 2 \cdot 4 = 72 \text{ bulunur.}$$

Cevap: E

4.

$$\bullet \rightarrow a, \quad \blacktriangle \rightarrow b, \quad \blacksquare \rightarrow c$$

$$a + b = c$$

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

$$2b + b = c \Rightarrow c = 3b$$

O halde

$$\frac{c + a}{b} = \frac{3b + 2b}{b} = \frac{5b}{b}$$

$$= 5 \text{ bulunur.}$$

Cevap: E

5.

 $n^2 + (n + 1)$ ifadesi kullanılmış.

2. $\rightarrow 2^2 + (2 + 1) = 7$

3. $\rightarrow 3^2 + (3 + 1) = 13$

⋮

6. $\rightarrow 6^2 + (6 + 1) = 43$

7. $\rightarrow 7^2 + (7 + 1) = 57$

8. $\rightarrow 8^2 + (8 + 1) = 73$

O halde,

1. $\rightarrow X = 1^2 + (1 + 1) = 3$

20. $\rightarrow Y = 20^2 + (20 + 1) = 421$

$$Y - X = 421 - 3 = 418 \text{ bulunur.}$$

Cevap: D

6.

I. ve II örneklemelerden




Cevap: C


7. 5 x 5'lik bir şeklimiz bulunmakta


$$\begin{array}{cccccc}
 5 \times 5 & 4 \times 4 & 3 \times 3 & 2 \times 2 & 1 \times 1 & \text{(Kare Çeşitleri)} \\
 1 \times 1 & 2 \times 2 & 3 \times 3 & 4 \times 4 & 5 \times 5 & \text{(Kare sayısı)} \\
 \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \\
 1 & + & 4 & + & 9 & + & 16 & + & 25 & = & 55 \text{ tane} \\
 & & & & & & & & & & \text{kare var.}
 \end{array}$$

Cevap: E

8.  → içindekinin 2 katı = 2a

 → içindekinin üçte biri = $\frac{b}{3}$

 → içindekinin yarısı = $\frac{c}{2}$

 → içindekilerin toplamı

 → ?

$$\frac{6}{\frac{3}{2}} + 2.4 = 1 + 8 = 9$$

9. Şekli tamamlayan



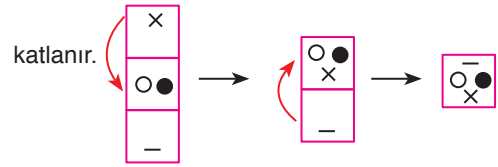
10. $6.2 + 4 = 16$

$$2.2 + 1 = 5$$

$$3.4 + 2 = 14$$

Cevap: D



11.



Cevap: C

12. M → 

 → 

 → 

O halde



Cevap: A

Cevap: D

13. Tablodaki adetler olarak grafik tablosunda gösterilmiş

O halde ●

K → 4 adet

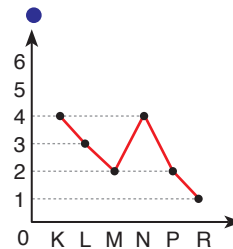
L → 3 adet

M → 2 adet

N → 4 adet

P → 2 adet

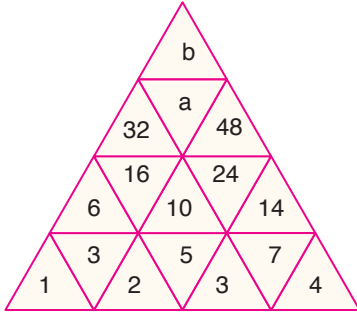
R → 1 adet



Cevap: D

Cevap: C

14.



$$a = 32 + 48 = 80$$

$$b = 32 + 48 + 80 = 160$$

Cevap: B

15.



16. Her basamakta bulunan * = 5

$$* \circ \diamond \rightarrow 5612 \text{ 'den}$$

$$\circ \rightarrow 6, \diamond \rightarrow 1, \rightarrow 2$$

$$\diamond \triangle \square * \rightarrow 2345 \text{ olur.}$$

Cevap: B

17.



Bu durumda



Cevap: A

18. Şekilden

1, 5, 9, ..., 217 iadesinin terim sayısını bulalım.

$$T.S = \frac{217-1}{4} + 1 = 55$$

Sol taraf $2n + 1$, sağ taraf $2n$ ifadesi

O halde

$$A = 2n + 1 = 2 \cdot 55 + 1 = 111$$

$$B = 2n = 2 \cdot 55 = 110$$

$$A + B = 111 + 110 = 221 \text{ bulunur.}$$

Cevap: C

19.

	$\frac{1}{1}$	$\frac{2}{0}$
1. satır $\rightarrow 1 \times 1 \rightarrow 2 \times 0$	}	1
2. satır $\rightarrow 1 \times 1 \rightarrow 2 \times 2$		2
3. satır $\rightarrow 1 \times 2 \rightarrow 2 \times 3$		3
4. satır $\rightarrow 1 \times 3 \rightarrow 2 \times 4$		4
\vdots	\vdots	\vdots

2'den 209 tane var ise

$$\textcircled{1} + 2 + 3 + 4 + \dots + n = 209 + \textcircled{1} \text{ eklediğimizde}$$

$$\frac{n \cdot (n+1)}{2} = 210$$

$$n \cdot (n+1) = 420$$

$$\downarrow \quad \downarrow$$

$$20 \quad 21$$

yani $n = 20$ satırdan oluşmakta 1'lerin ardışık sırası 19'a kadar olur.

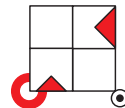
O halde 1'lerden

$$1 + 1 + 2 + 3 + \dots + 19 = \frac{20 \cdot 19}{2}$$

$$= 190 + 1 = 191 \text{ tane}$$

Cevap: C

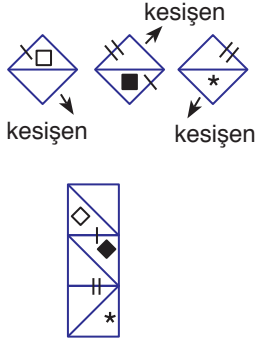
20. Şekil 90 derece saat yönünün tersine çevrilmekte



Cevap: A

Cevap: B

21. Üst üste konulmakta



Cevap: C

22. Her bir dikdörtgen üstünde

3 → , 2 → , → 1 ve → 1 tane bulunmakta

O halde

x 54 ise $54 : 3 = 18$ tane grup oluşturulmuş

x 2.18 = 36 tane = A

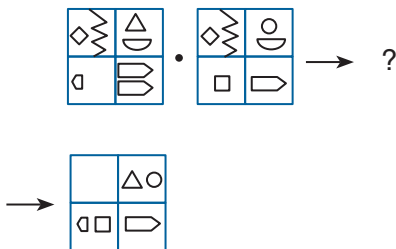
x 1.18 = 18 tane = B

x 1.18 = 18 tane = C

$A + B + C = 36 + 18 + 18 = 72$ bulunur.

Cevap: D

23. Üst üste konulup ortak olanlar siliniyor.



Cevap: B

24. $\blacktriangle = a$, $\blacksquare = b$, $\bullet = c$

$$4a = b \rightarrow$$

$$3c + 3a = 2b = 8a$$

$$3c = 5a$$

$$\frac{a}{b} = \frac{1.3k}{4.3k} = \frac{3k}{12k} \quad \text{ve} \quad \frac{c}{a} = \frac{5k}{3k}$$

$$a = 3k, \quad b = 12k, \quad c = 5k$$

seçeneklerden 15k arıyoruz.

$$a + b = 3k + 12k = 15k$$

●●●

Cevap: B

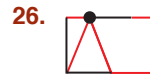
25.

4	5
---	---

$\downarrow \quad \downarrow$
4 + 5
9 olmalı O halde

$$3 + K = 9 \Rightarrow K = 6 \text{ olur.}$$

Cevap: D



şekli tamamlayan A seçeneği

Cevap: A

27. $B = 64 - 26 = 38$

$$A = \frac{10}{2} + 26 = 31$$

$$A + B = 38 + 31 = 69$$

Cevap: C

28.

⊗	▲	○	■	⬡	●
▲	⬡	●	▲	○	■
○	●	▲	○	■	⬡
■	▲	○	■	⬡	●
⬡	○	■	⬡	●	▲
●	■	⬡	●	▲	○

$$[(\triangle \otimes \heptagon) \otimes ?] \otimes (\square \otimes \square) = \square$$

$$\begin{array}{c} \circ \otimes ? \\ \circ \otimes ? \\ \square \end{array}$$

olması için ? = ⬡ olmalı seçeneklerden C

● ⊗ ○ = ⬡ olmakta

Cevap: C

$$29. \quad 8 \xrightarrow{3} A = \frac{1+2+3+\dots+8}{3^8} = \frac{36}{3^8}$$

$$4 \xrightarrow{9} B = \frac{1+2+3+4}{9^4} = \frac{10}{3^8}$$

$$\frac{A}{B} = \frac{\frac{36}{3^8}}{\frac{10}{3^8}} = \frac{36}{3^8} \cdot \frac{3^8}{10}$$

$$= \frac{18}{5} \text{ bulunur.}$$

Cevap: B

30. Her bir şekil 60° olduğu görülmekte

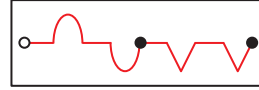
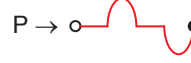
VI'da 2 tane ▲ → 120°

2 tane ✱ → 120°

2 tane ✨ → 120°

Cevap: E

31.



Cevap: B

TASARI EĞİTİM YAYINLARI

32.



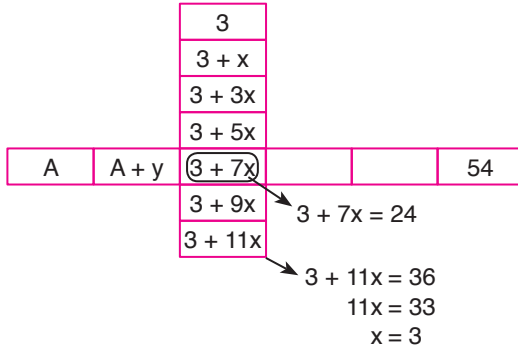
Cevap: B

33. Tablodan tersten işlem önce satır daha sonra sütun kesişim.

NKLLNRLLRMN olur.

Cevap: A

34.



$$A + 9y = 54$$

$$\begin{array}{cc} \downarrow & \downarrow \\ 9 & 5 \end{array}$$

$$A + 3y = 24$$

$$\begin{array}{cc} \downarrow & \downarrow \\ 9 & 5 \end{array}$$

A = 9 bulunur.

Cevap: E

$$35. \quad [114, 19] \xleftrightarrow{x6} [184, 23] \xleftrightarrow{x8} [270, 27] \xleftrightarrow{x10} [x, y] \xleftrightarrow{12}$$

C) $31 \times 12 = 372$

Cevap: C

36. $654 \xrightarrow{(6.5)-4} 26$

$783 \xrightarrow{(7.8)-3} 53$

$925 \xrightarrow{(9.2)-5} 13$

$372 \xrightarrow{(3.7)-2} 19$

Cevap: C

37. I. $\sqrt{1+8+6+5+3+2} = \sqrt{25} = 5$

II. $\sqrt{11+13+6+5+9+20} = \sqrt{64} = 8$

$\sqrt{25+2+12+33+11+17} = \sqrt{100} = 10$

Cevap: D

38. Ardışık sayılardan hareketle

1. $\rightarrow 3$

2. $\rightarrow 8$

Artış miktarı = 5

3. $\rightarrow 13$

4. $\rightarrow 18$

\vdots

25. $\rightarrow x$

Terim Sayısı = $\frac{\text{Son Terim} - \text{İlk Terim}}{\text{Artış Miktarı}} + 1$

$$25 = \frac{x-3}{5} + 1$$

$$24 = \frac{x-3}{5}$$

$$x-3 = 120$$

$$x = 123 \text{ bulunur.}$$

Cevap: D

39. $CE3D \xrightarrow{\star} 3ECD$

$K9LE \xrightarrow{\text{diagonal}} L9EK$

$MA5R \xrightarrow{\text{diagonal}} 5ARM \xrightarrow{\star} RA5M$

Cevap: B

$$40. \frac{12.4}{8.2} = 3, \quad \frac{9.6}{3.2} = 9,$$

$$\frac{A.8}{10.3} = 4, \quad \frac{36.4}{1.9} = 16$$

$$\Rightarrow A.8 = 120$$

$$A = 15 \text{ bulunur.}$$

Cevap: A

$$41. \frac{1 \cdot \frac{2}{3} + \frac{1}{2}}{1 - 2 \cdot \frac{2}{5}} = \frac{1 \cdot \frac{3}{2} + \frac{1}{2}}{1 - 2 \cdot \frac{5}{2}} + \frac{1}{2}$$

$$= \frac{\frac{3}{2} + \frac{1}{2}}{1 - 5} + \frac{1}{2} = \frac{\frac{3}{2} + \frac{1}{2}}{-4} + \frac{1}{2}$$

$$= -\frac{3}{8} + \frac{1}{2}$$

$$= \frac{-3 + 4}{8}$$

$$= \frac{1}{8}$$

Cevap: E

$$42. a = 2,\overline{68} = 2,686868686868\dots$$

$$b = 2,\overline{6} = 2,666666666666\dots$$

$$c = 2,687 = 2,687000\dots$$
$$\Rightarrow b < a < c$$

Cevap: A

$$43. \frac{8 \cdot 10^n}{10^m} = 25 \cdot 5^5 \cdot 4^5$$

$$2^3 \cdot 10^{n-m} = 5^2 \cdot 5^5 \cdot 2^{10}$$

$$2^3 \cdot 10^{n-m} = 5^7 \cdot 2^{10}$$

$$10^{n-m} = 5^7 \cdot 2^7$$

$$10^{n-m} = 10^7 \Rightarrow n - m = 7$$

$$\Rightarrow (n - m)^2 = 7^2 = 49$$

Cevap: A

$$44. \begin{array}{r|l} a & b \\ - & 3 \\ \hline & 1 \end{array} \Rightarrow a = 3b + 1$$

$$\begin{array}{r|l} a & c \\ - & 4 \\ \hline & 2 \end{array} \Rightarrow a = 4c + 2$$

$$\Rightarrow 3b + 1 = 4c + 2$$

$$4c = 3b + 1 - 2$$

$$4c = 3b - 1$$

$$c = \frac{3b - 1}{4}$$

Cevap: C

$$45. \frac{1}{2!} + \frac{2}{3!} + \frac{3}{4!} + \frac{4}{5!} + \frac{5}{6!} + \frac{7}{7!}$$

$$= \frac{1}{1!} - \frac{1}{2!} + \frac{1}{2!} - \frac{1}{3!} + \frac{1}{3!} - \frac{1}{4!} + \frac{1}{4!} - \frac{1}{5!} + \frac{1}{5!} - \frac{1}{6!} + \frac{1}{6!} - \frac{1}{7!}$$

$$= 1 - \frac{1}{7!} = \frac{7! - 1}{7!}$$

Cevap: D

46. • $a^2 \cdot c > 0 \Rightarrow c > 0$
 • $b^2 \cdot a \cdot c < 0 \Rightarrow a < 0$
 $\downarrow \quad \downarrow$
 $+ \quad +$
 • $a \cdot b \cdot c < 0 \Rightarrow b > 0$
 $\downarrow \quad \downarrow$
 $- \quad +$
 $\Rightarrow a = -$
 $b = +$
 $c = +$

Cevap: D

47. $\frac{(a+b)^2}{a^3-b^3} + \frac{1}{b-a} = \frac{(a+b)^2}{a^3-b^3} - \frac{1}{a-b}$
 $\frac{(a+b)^2 - (a^2+ab+b^2)}{a^3-b^3}$
 $= \frac{a^2+2ab+b^2 - a^2 - ab - b^2}{a^3-b^3}$
 $= \frac{ab}{a^3-b^3}$

Cevap: B

48. • $\frac{a}{b} = \frac{c}{d} = k$
 • $\frac{a-b}{b} \cdot \frac{c-d}{d} = 36$
 $\left(\frac{a}{b} - \frac{b}{b}\right) \cdot \left(\frac{c}{d} - \frac{d}{d}\right) = 36$
 $\left(\frac{a}{b} - 1\right) \cdot \left(\frac{c}{d} - 1\right) = 36$
 $(k-1)(k-1) = 36$
 $(k-1)^2 = 36$
 $k-1 = 6 \Rightarrow k = 7$
 $\frac{a}{b} = 7 \rightarrow a = 7b, \quad \frac{c}{d} = 7 \rightarrow c = 7d$
 $\Rightarrow \frac{a \cdot c}{b \cdot d} = \frac{7b \cdot 7d}{b \cdot d} = 7 \cdot 7 = 49$

Cevap: D

49. $\begin{array}{|c|c|c|} \hline & \overset{1}{\curvearrowright} & \overset{1}{\curvearrowright} \\ \hline A & B & C \\ \hline - & B & D \\ \hline 3 & 9 & 4 \\ \hline \end{array}$ $C + 10 - D = 4$
 $D - C = 6$
 $A - 1 - B = 3$
 $A - B = 4$

• $AD - BC = 10A + D - 10B - C$
 $= 10(A - B) + D - C$
 $= 10 \cdot 4 + 6$
 $= 40 + 6 = 46$

Cevap: E

50. • $3^{\frac{1}{6}} + 1 = a \Rightarrow 3^{\frac{1}{6}} = a - 1$
 • $\left(3^{\frac{1}{6}}\right)^2 = (a-1)^2 \Rightarrow 3^{\frac{1}{3}} = (a-1)^2$
 $\frac{3^{\frac{1}{3}} - 1}{\left(3^{\frac{1}{12}} - 1\right)\left(3^{\frac{1}{12}} + 1\right)} = \frac{3^{\frac{1}{3}} - 1}{3^{\frac{1}{6}} - 1} = \frac{(a-1)^2 - 1}{a-1-1}$
 $= \frac{a^2 - 2a + 1 - 1}{a-2} = \frac{a^2 - 2a}{a-2} = \frac{a(a-2)}{a-2} = a$

Cevap: A

51. $\frac{2x+1}{x+3} - \frac{1}{x+1} = \frac{x-2}{x+3} + \frac{x-3}{x+1}$
 $\frac{2x+1}{x+3} - \frac{x-2}{x+3} = \frac{x-3}{x+1} + \frac{1}{x+1}$
 $\frac{2x+1-x+2}{x+3} = \frac{x-3+1}{x+1}$
 $\frac{x+3}{x+3} = \frac{x-2}{x+1}$
 $1 = \frac{x-2}{x+1}$
 $x+1 = x-2$
 $0 = -3 \Rightarrow CK = \emptyset$

Cevap: D

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

$$\begin{array}{r} P(x) \mid x^2-1 \\ - \\ \hline 0 \end{array} \quad x^2 = 1 \text{ yazılırsa sonuç 0 olacaktır.}$$

$$m \cdot \underset{1}{(x^2)^2} + \underset{1}{x^2} \cdot x + nx - 2 = 0$$

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

$$m = 2$$

Cevap: D

68. • $f(3) = 3^2 - 3 + 2 = 8$

$g(2) = 2^2 - 1 = 3$

$$\Rightarrow \underbrace{(g \circ f)(3)}_8 + \underbrace{(f \circ g)(2)}_3$$

$$= g(8) + f(3)$$

$$= 3 \cdot 8 - 2 + 3^2 - 3 + 2$$

$$= 24 - 2 + 9 - 3 + 2$$

$$= 30$$

Cevap: E

69. $\frac{f(x+2)}{f(x-2)} = \frac{2^{2(x+2)+1}}{2^{2(x-2)+1}} = \frac{2^{2x+4+1}}{2^{2x-4+1}} = \frac{2^{2x+5}}{2^{2x-3}}$

$$= 2^{2x+5-2x+3} = 2^8 = 256$$

Cevap: E

70. • $R(x) = x^2 - 1 \Rightarrow R(R(x)) = (x^2 - 1)^2 - 1$

$$R(R(x)) = x^4 - 2x^2 + 1 - 1$$

$$= x^4 - 2x^2$$

• $P(x) = R(R(x))$

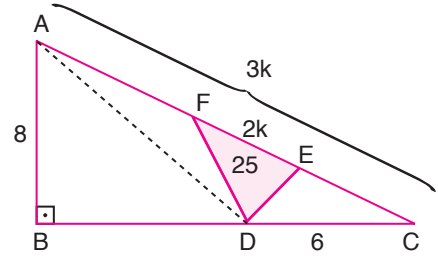
$$ax^4 + bx^3 + cx^2 + dx + e = x^4 - 2x^2$$

$$\Rightarrow a = 1, \quad b = 0, \quad c = -2, \quad d = 0, \quad e = 0$$

$$a + b + c + d + e = 1 + 0 - 2 + 0 + 0 = -1$$

Cevap: C

71.



$$A(\widehat{ADC}) = \frac{8 \cdot 6}{2} = 24$$

$$3S = 24 \quad S = 8$$

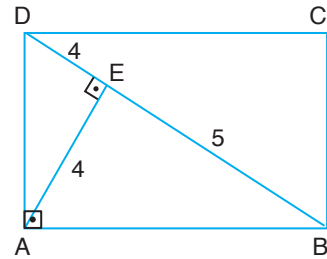
$$2S = A(FDE)$$

$$2 \cdot 8 = 16$$

Cevap: A

TASARI EĞİTİM YAYINLARI

72.



$$h^2 = 4.5$$

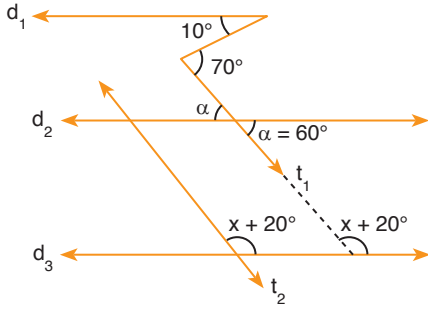
$$h = 2\sqrt{5}$$

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

$$A(ABCD) = 2 \cdot 9\sqrt{5} = 18\sqrt{5}$$

Cevap: A

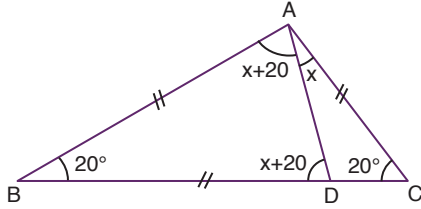
73.



$$\begin{aligned} 70^\circ &= 10^\circ + \alpha \\ \alpha &= 60^\circ \\ x + 20^\circ + 60^\circ &= 180^\circ \\ x &= 100^\circ \end{aligned}$$

Cevap: B

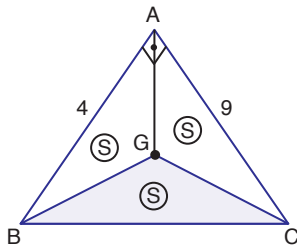
74.



$$\begin{aligned} |AB| &= |AC| \\ \Rightarrow m(\widehat{ABC}) &= m(\widehat{ACB}) = 20^\circ \\ |AB| &= |BD| \Rightarrow m(\widehat{BAD}) = m(\widehat{ADB}) = x + 20 \\ \Rightarrow 20 + x + 20 + x + 20 &= 180 \\ 2x &= 120 \\ x &= 60^\circ \end{aligned}$$

Cevap: D

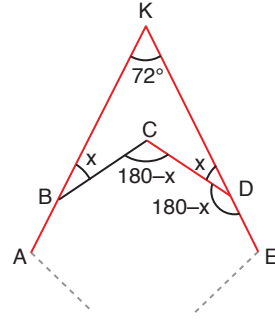
75.



$$\begin{aligned} 3S &= \frac{4 \cdot 9}{2} \\ 3S &= 18 \\ S &= 6 \text{ cm}^2 \end{aligned}$$

Cevap: A

76.



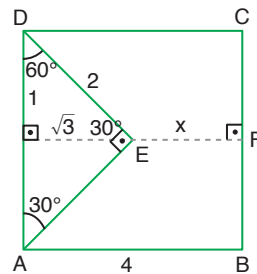
$$\begin{aligned} (\text{triangle}) &\Rightarrow 72 + x + x = 180 - x \\ 3x &= 108 \\ x &= 36^\circ \end{aligned}$$

$$\Rightarrow \text{Kenar Sayısı} = \frac{360^\circ}{x} = \frac{360}{36} = 10 \text{ dur.}$$

Cevap: C

TASARI EĞİTİM YAYINLARI

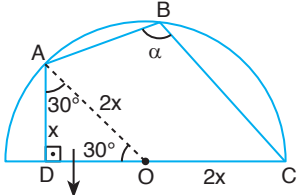
77.



$$x + \sqrt{3} = 4 \Rightarrow x = 4 - \sqrt{3}$$

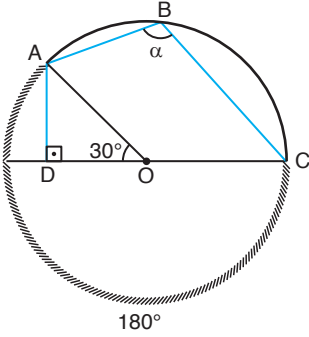
Cevap: B

78.



$|AD| = x$ ve $|AO| = 2x \Rightarrow$ ise
 $(30^\circ - 60^\circ - 90^\circ) m(\widehat{DAO}) = 60^\circ$ ve
 $m(\widehat{DOA}) = 30^\circ$ olur.

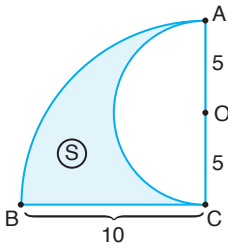
$$2 \frac{|AD|}{x} = \frac{|OC|}{2x}$$



$$\Rightarrow \alpha = \frac{30 + 18}{2} = 105^\circ$$

Cevap: E

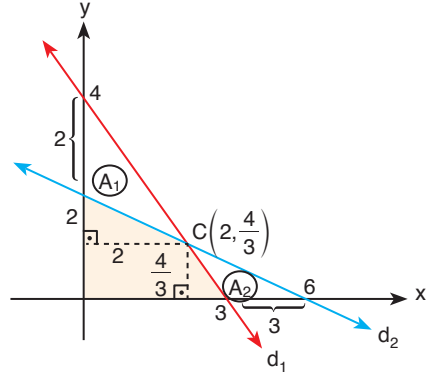
79.



$$\begin{aligned} \text{Taralı Alan} &= \frac{\pi 10^2}{4} - \frac{\pi 5^2}{2} \\ &= 25\pi - \frac{25\pi}{2} \\ &= \frac{50\pi - 25\pi}{2} \\ &= \frac{25\pi}{2} \text{ cm}^2 \end{aligned}$$

Cevap: A

80.



$$d_1: \frac{x}{3} + \frac{y}{4} = 1 \Rightarrow 4x + 3y = 12$$

$$d_2: \frac{x}{6} + \frac{y}{2} = 1 \Rightarrow -x + 3y = 6$$

$$3x = 6$$

$$x = 2$$

$$y = \frac{4}{3}$$

$$A_1 = \frac{2 \cdot 2}{2} = 2 \Rightarrow A_1 + A_2 = 4$$

$$A_2 = \frac{3 \cdot \frac{4}{3}}{2} = 2$$

Cevap: C