

Bu testte cevaplayacağınız toplam soru sayısı 80'dir.

$$1. \frac{2\left(1 - \frac{1}{2}\left(\frac{3}{2}\right)^{-2}\right) - 3}{\left(1 + \frac{1}{2}\right)^{-1}} = \frac{2\left(\frac{1}{2} \cdot \frac{4}{9}\right) - 3}{\left(1 + \frac{1}{2}\right)^{-1}}$$

$$\frac{2\left(1 - \frac{2}{9}\right) - 3}{\left(\frac{3}{2}\right)^{-1}} = \frac{2 \cdot \frac{7}{9} - 3}{\frac{2}{3}}$$

$$= \frac{\frac{14}{9} - 3}{\frac{2}{3}} = \frac{14 - 27}{\frac{9}{3}} \cdot \frac{3}{2} = -\frac{13}{6}$$

Cevap: C

$$2. \frac{\frac{1}{10}}{\frac{4}{100}} - \frac{\frac{2}{10}}{\frac{25}{100}} = \frac{1}{4} - \frac{2}{25} = \frac{5}{2} - \frac{2 \cdot 2}{5} = \frac{5}{2} - \frac{4}{5}$$

$$= \frac{25 - 8}{10} = \frac{17}{10} = 1,7$$

Cevap: D

$$3. 2^x = 5$$

$$4^{2x+1} = 2^{2(2x+1)} = 2^{4x+2} = 2^{4x} \cdot 2^2 = (2^x)^4 \cdot 2^2 = 5^4 \cdot 2^2$$

Cevap: E

$$4. \frac{\frac{5}{10^3} \cdot 10^{32} + \frac{8}{10} \cdot 10^{32}}{10^{32}} = \frac{10^{32}(5+8)}{10^{32}} = 13$$

Cevap: C

$$5. \sqrt{4+2\sqrt{3}} - \sqrt{4-2\sqrt{3}} = \sqrt{3} + 1 - (\sqrt{3} - 1)$$

$$\begin{array}{c} \swarrow \quad \searrow \\ \sqrt{3} + \sqrt{1} \quad \sqrt{3} - \sqrt{1} \\ \downarrow \quad \downarrow \\ \sqrt{3} + 1 - \sqrt{3} + 1 = 2 \end{array}$$

Cevap: E

$$6. 15\sqrt{2^5 \sqrt{x}} = 5 \cdot 3\sqrt{2^5} \cdot 3 \cdot 5\sqrt{3^3} = 15\sqrt{2^5 \cdot 3^3}$$

$$\Rightarrow 15\sqrt{2^5 \cdot x} = 15\sqrt{2^5 \cdot 3^3} \Rightarrow x = 3^3$$

Cevap: C

$$7. 30\left(\frac{a}{2} + \frac{b}{3} + \frac{c}{5}\right) = 30 \cdot 12$$

$$\Rightarrow 15a + 10b + 6c = 30 \cdot 12 = 360$$

Cevap: D

$$8. \begin{array}{l} a, b, c \in \mathbb{Z}^+ \\ a - b = 1 \\ a - c = 5 \end{array} \Rightarrow a + a - 1 + a - 5 - 3a - b$$

$c \in \mathbb{Z}^+$  olduğundan en az 1 olabilir.

$c = a - 5 = 1 \Rightarrow a = b$

$3a - b = 3 \cdot 6 - b = 18 - 6 = 12$

Cevap: B

$$9. B = \frac{33b - 7a}{9} = \frac{112}{3} - \frac{7a}{9}$$

Tabanı 3 yapmak için seçilebilecek en küçük doğal sayı  $a = 3$ 'tür.

$$\frac{112}{3} - \frac{7 \cdot 3}{9} = \frac{112 - 7}{3} = \frac{105}{3} = 35$$

Cevap: E

10. Tek sayılarda toplam formülü  $= n^2$

$$n^2 - (1+3+\dots+29) = 2275$$

$$2n - 1 = 29$$

$$2n = 30$$

$$n = 15$$

$$n^2 - 15^2 = 2275$$

$$n^2 - 225 = 2275$$

$$n^2 = 2500$$

$$n = 50$$

Cevap: D

$$11. \frac{n \cdot (n-1)! \cdot (n+1)!}{(n-1)! \cdot (n+2) \cdot (n+1)!} = \frac{n}{n+2}$$

Cevap: C

12. Pay ile payda arasındaki farkları eşit olan basit kesirlerde payı büyük olan büyüktür.

$$\frac{15}{16} > \frac{14}{15} > \frac{13}{14} \rightarrow \underbrace{y+z} > \underbrace{x+z} > x+y$$

$$y+z > x+z \quad x+y > x+y$$

$$y > x$$

$$z > y$$

$$z > y > x$$

Cevap: A

$$13. 12 \leq a + 4 \leq 20$$

$$12 \leq b + 8 \leq 22$$

$$(a+4) \uparrow \Rightarrow \max\left(\frac{a+4}{b+8}\right) \text{ i bulurum.}$$

$$\frac{20}{12} = \frac{5}{3}$$

Cevap: D

$$14. 2x - 3 = 4$$

$$2x - 3 = -4$$

$$2x = 7$$

$$2x = -1$$

$$x = \frac{7}{2}$$

$$x = -\frac{1}{2}$$

$$\Rightarrow \frac{7}{2} - \frac{1}{2} = \frac{6}{2} = 3$$

Cevap: A

$$15. \frac{b+a}{ab} \cdot ab(a-b) = \frac{(b+a) \cdot ab \cdot (a-b)}{ab \cdot (a-b) \cdot (a+b)} = 1$$

Cevap: C

$$16. a^3 + b^3 = (a+b)(a^2 - ab + b^2)$$

$$(a+b)^2 = a^2 + b^2 + 2ab$$

$$(a+b)^2 = 1^2$$

$$a^2 + b^2 + 2ab = 1$$

$$a^2 + b^2 + 2(-3) = 1$$

$$a^2 + b^2 = 7$$

$$a^3 + b^3 + (a+b)(a^2 - ab + b^2)$$

$$= 1 \cdot (7 - (-3)) = 1 \cdot (7 + 3) = 10$$

Cevap: E

$$\begin{array}{r}
 17. \quad a + 2b = 2c \\
 - / 2b - 4a = -2c \\
 \hline
 a + 2b = 2c \\
 + \quad -2b + 4a = 2c \\
 \hline
 5a = 4c \\
 \frac{5}{4} = \frac{c}{a}
 \end{array}$$

Cevap: B

$$\begin{array}{r}
 18. \quad \frac{1}{\frac{x-3}{(x-6)}} + \frac{1}{\frac{x-6}{(x-3)}} = \frac{2}{x} \\
 \frac{x-6+x-3}{(x-3)(x-6)} = \frac{2}{x} \\
 \frac{2x-9}{x^2-9x+18} = \frac{2}{x} \\
 2x^2-9x = 2x^2-18x+36 \\
 9x = 36 \\
 x = 4
 \end{array}$$

Cevap: B

$$\begin{array}{r}
 19. \quad a * b = (a-b)^2 + 5\sqrt{ab} \\
 2 * 8 = (\sqrt{2}-\sqrt{8})^2 + 5\sqrt{\sqrt{2} \cdot \sqrt{8}} \\
 \begin{array}{r}
 \underline{\quad} \\
 \underline{\quad} \\
 a \quad b
 \end{array} \\
 = 2 + 8 - 2 \cdot \sqrt{2} \cdot \sqrt{8} + 5\sqrt{\sqrt{16}} \\
 \begin{array}{r}
 \underline{\quad} \\
 \underline{\quad} \\
 4 \\
 \underline{\quad} \\
 2
 \end{array} \\
 = 10 - 2 \cdot 4 + 5 \cdot 2 \\
 = 10 - 8 + 10 \\
 = 12
 \end{array}$$

Cevap: B

$$\begin{array}{r}
 20. \quad \begin{array}{r}
 A \ 5 \ B \\
 - \ C \ A \ 3 \\
 \hline
 B \ 7 \ 9 \\
 \hline
 4x \equiv -6
 \end{array}
 \end{array}$$

B sayısı bir onluk aldıktan sonra 3 çıkarıldığında 9 bulunuyor.

$$B + 10 - 3 = 9 \Rightarrow B = 2 \text{ olur.}$$

• 5 sayısı sağdaki basamağa bir ondalık verip 4 kaldıktan sonra A çıkarılıp 7 olması için 4 soldan ondalık almıştır.

$$4 + 10 - A = 7$$

$$A = 7$$

$$\begin{array}{r}
 \text{Son olarakta} \quad \begin{array}{r}
 7 \ 5 \ 2 \\
 - \ C \ 7 \ 3 \\
 \hline
 2 \ 7 \ 9 \rightarrow c = 4
 \end{array}
 \end{array}$$

$$A + B + C = 7 + 2 + 4 = 13$$

Cevap: A

$$21. \quad x^2 = x - 3 \text{ diyelim.}$$

$$f(x-3+3) = 2(x-3) + 9$$

$$f(x) = 2x - 6 + 9 = 2x + 3$$

Cevap: B

$$\begin{array}{r}
 22. \quad g(x) = x^3 + 3x^2 + 3x + 1 = (x+1)^3 \\
 g(\sqrt[3]{2} - 1) = (\sqrt[3]{2} - 1 + 1)^3 = (\sqrt[3]{2})^3 = 2 \\
 f(g(\sqrt[3]{2} - 1)) = f(2) = x + 5 = 2 + 5 = 7
 \end{array}$$

Cevap: D

$$23. \quad P(0) = 2 \text{ ise } x = -1 \text{ olsun.}$$

$$P(0) = (2(-1) - 1)^2 - b(-1) + 5$$

$$= (-2 - 1)^2 + b + 5$$

$$= (-3)^2 + b + 5$$

$$= 9 + b + 5 = 14 + b$$

$$P(0) = 14 + b = 2$$

$$b = -12$$

$$P(-1) \text{ için } x = -2 \text{ olmalı.}$$

$$P(-1) = (2(-2) - 1)^2 - (-12)(-2) + 5$$

$$= (-4 + 1)^2 + 12(-2) + 5$$

$$= (-5)^2 - 24 + 5$$

$$= 25 - 24 + 5$$

$$= 6$$

Cevap: A

$$24. (x_1^2 + x_2^2)^2 = x_1^2 + x_2^2 + 2x_1 \cdot x_2$$

$$x_1 + x_2 = -\frac{b}{a} = 5$$

$$x_1 \cdot x_2 = \frac{c}{a} = -8$$

$$\Rightarrow 5^2 = x_1^2 + x_2^2 + 2(-8)$$

$$x_1^2 + x_2^2 = 25 + 16$$

$$\begin{aligned} x_1^2 + x_2^2 - 5(x_1 + x_2) &= 25 + 16 - 5(5) \\ &= 25 + 16 - 25 \\ &= 16 \end{aligned}$$

Cevap: E

$$25. 2017 \equiv 2 \pmod{5}$$

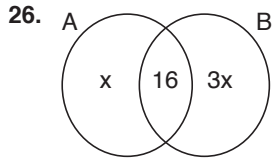
$$2^1 = 2 \pmod{5}$$

$$(2^2)^{1008} = (-1)^{1008}$$

4 yerine -1'de yazılabilir.

$$\textcircled{2} \cdot 2^{2016} = 1 \cdot \textcircled{2}$$

Cevap: C



$$2(x + 16) = 4x + 16$$

$$2x + 32 = 4x + 16$$

$$16 = 2x \Rightarrow x = 8$$

$$\Rightarrow n(A) = x + 16 = 8 + 16 = 24$$

Cevap: A

$$27. \frac{x}{a} \cdot \frac{b}{y} = 3 \Rightarrow \frac{b}{y} = \frac{30}{x}$$

$$\Rightarrow \frac{a^2}{x^2} + \left(\frac{3a}{x}\right)^2 = 40$$

$$\frac{a^2}{x^2} + \frac{9a^2}{x^2} = 40$$

$$10a^2 = 40x^2$$

$$a^2 = 4x^2$$

$$a = 2x \Rightarrow x = \frac{a}{2}$$

Cevap: A

$$28. \left(\sqrt{\frac{\sqrt{x+3}}{\sqrt{x-3}}} = \sqrt{x+3}\right)^2$$

$$\frac{\sqrt{x+3}}{\sqrt{x-3}} = (\sqrt{x+3})^2$$

$$\frac{1}{\sqrt{x-3}} = \sqrt{x+3}$$

$$1 = x - 9$$

$$\boxed{10 = x}$$

Cevap: E

$$29. \begin{array}{l} 2/ \quad 2x - 3y = 3 \\ \cdot \quad 3/ \quad x + 2y = 5 \end{array}$$

$$\begin{array}{r} 4x - 6y = 6 \\ + \quad 3x + 6y = 15 \\ \hline 7x = 6 + 15 \end{array}$$

$$7x = 21$$

$$x = 3 \Rightarrow 3 + 2y = 5$$

$$2y = 2$$

$$y = 1$$

$$\Rightarrow \frac{x}{y} = \frac{3}{1} = 3$$

Cevap: B

$$30. \quad 3x + y - 3z - \frac{2x - y + 3z}{4}$$

$$12x + 4y - 12z - 2x + y - 3z = \frac{10x + 5y - 15z}{4}$$

$$= \frac{5(2x + y - 3z)}{4}$$

$$= \frac{5 \cdot 44}{4} = 55$$

Cevap: C

$$31. \quad \left( \frac{2^{2x} + 2^{-2x} - 1}{2^{3x} + 2^{-3x}} \cdot \frac{2^x - 2^{-x}}{2^x + 2^{-x}} \right)^{-1}$$

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

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

Cevap: D

$$32. \quad \left. \begin{array}{l} 36 = 1.2.18 \rightarrow 3! = 6 \\ 36 = 1.3.12 \rightarrow 3! = 6 \\ 36 = 1.4.9 \rightarrow 3! = 6 \\ 36 = 1.6.6 \rightarrow \frac{3!}{2!} = 3 \\ 36 = 2.3.6 \rightarrow 3! = 6 \\ 36 = 3.3.4 \rightarrow \frac{3!}{2!} = 3 \\ 36 = 1.1.36 \rightarrow \frac{3!}{2!} = 3 \\ 36 = 2.2.9 \rightarrow \frac{3!}{2!} = 3 \end{array} \right\} 36$$

Cevap: D

$$33. \quad \frac{a - \frac{9}{a}}{a^2 - 4a + 3} : \left( \frac{a+3}{1 - \frac{1}{a}} \right) = \frac{1}{12}$$

$$\frac{a^2 - 9}{a} \cdot \frac{a}{(a-3)(a-1)} \cdot \frac{1}{a+3} = \frac{1}{12}$$

$$\frac{a^2 - 9}{a \cdot a \cdot (a^2 - 9)} = \frac{1}{12}$$

$$\frac{1}{a^2} = \frac{1}{12} \Rightarrow a^2 = 12$$

$$a = 2\sqrt{3}$$

Cevap: A

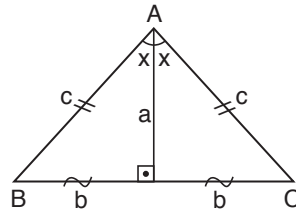
$$34. \quad B = 100 \Rightarrow A = 100 \cdot \frac{25}{100} = 25$$

$$B = C \cdot \frac{40}{100} \Rightarrow 100 = C \cdot \frac{2}{5} \Rightarrow C = 250$$

$$\Rightarrow A = C \cdot \frac{?}{100} \Rightarrow 25 = 250 \cdot \frac{?}{100} \Rightarrow ? = 10$$

Cevap: D

35.



$$\sin \hat{A} = \frac{3}{5}$$

$$\sin 2x = \frac{3}{5}$$

$$2 \cdot \sin x \cdot \cos x = \frac{3}{5}$$

$$2 \cdot \sin x \cdot \cos x = \frac{3}{10}$$

$$\tan B + \cot C = \frac{\sin B}{\cos B} + \frac{\cos C}{\sin C}$$

$$= \frac{sB \cdot sC + cB \cdot cC}{cB \cdot sC}$$

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

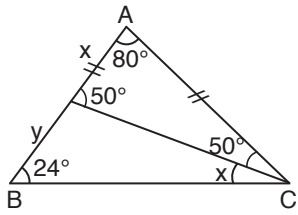
$$= \frac{b}{c} \cdot \frac{a}{c}$$

$$a^2 + b^2 = c^2 \text{ (şekilden)}$$

$$\frac{c^2}{a^b} = \frac{10}{3}$$

Cevap: D

36.

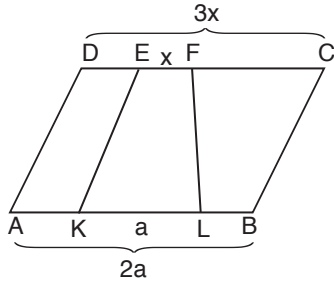


$$x + 24 = 50^\circ$$

$$x = 26^\circ$$

Cevap: D

37.



$$3x = 2a$$

$$\downarrow \quad \downarrow$$

$$2k \quad 3k$$

$$|AB| = |DC| = 6k$$

$$\frac{(2k + 3k)h}{2} = 25$$

$$5k \cdot h = 50$$

$$k \cdot h = 10$$

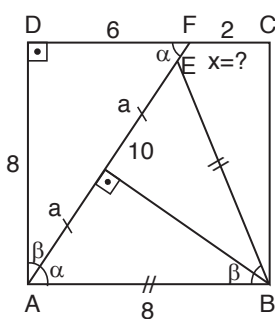
$$6k \cdot h = ?$$

$$6kh = 6 \cdot 10$$

$$= 60$$

Cevap: A

38.



Benzerlik:

$$\frac{6}{a} \sim \frac{10}{8}$$

$$10a = 48$$

$$a = 4,8$$

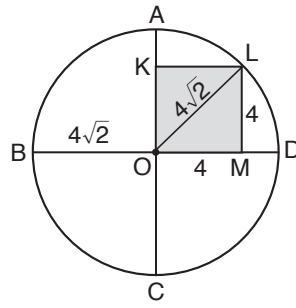
$$2a = 9,6$$

$$10 - 2a = x$$

$$\rightarrow 10 - 9,6 = 0,4 = \frac{2}{5}$$

Cevap: A

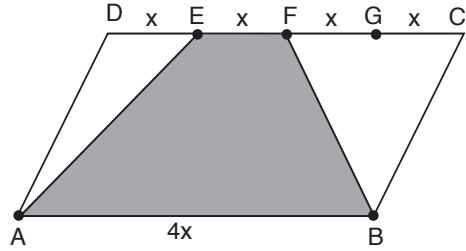
39.



$$4 \cdot 4 = 16$$

Cevap: C

40.



$$\frac{A(ABFE)}{A(ABCD)} = \frac{\frac{(x + 4x) \cdot h}{2}}{4x \cdot h}$$

$$= \frac{5x \cdot h}{2} \cdot \frac{1}{4x \cdot h}$$

$$= \frac{5}{8}$$

Cevap: D

41. F → 6

A → 8

i → 7

K → 9

FaİK = ?

6879

Cevap: A

42.  $2.5 - 1 = 9$   
 $2.9 - 1 = 17$   
 $2.17 - 1 = 33$   
 $2.33 - 1 = 65$   
 $2.65 - 1 = 129$

Cevap: D

43.  $2^4 + 7 = 23$   
 $3^2 + 9 = 18$   
 $5^3 + 4 = 129$   
 $7^2 + 5 = 54$

Cevap: A

44.  $3, 6, 4, 12, 9$   
 $\begin{array}{cccccc} & \nearrow & \searrow & \nearrow & \searrow & \\ & 2 & -2 & .3 & -3 & \end{array}$

Cevap: E

45.  $\square \rightarrow \cdot$   
 $\Delta \rightarrow +$   
 $(2 \square 1) \Delta (4 \Delta 2)$   
 $(2.1) + (4 + 2)$   
 $2 + 6 = 8$

Cevap: C

46.

	15	20	50	19
2	$\Delta$	$\square$	$\square$	$\Delta$
3	$\square$	$\Delta$	$\Delta$	$\Delta$
10	$\Delta$	$\square$	$\square$	$\Delta$
5	$\square$	I	II	III

$\square \quad \square \quad \Delta$

Cevap: C

47.  $\left. \begin{array}{l} \frac{5x}{4} = 5, \quad x = 4 \\ 3y = 6, \quad y = 2 \end{array} \right\} \begin{array}{l} 2x - \frac{y}{2} \\ = 2.4 - \frac{2}{2} \\ = 8 - 1 \\ (5 \square 6) = 7 \end{array}$

$\left. \begin{array}{l} 2x = b, \quad x = 3 \\ \frac{2y}{5} = 4, \quad y = 10 \end{array} \right\} \begin{array}{l} \frac{4x}{3} + 3y \\ = \frac{4.3}{3} + 3.10 \\ = 4 + 30 \\ (6 \bullet 4) = 34 \end{array}$

$(5 \square 6) + (6 \bullet 4)$   
 $= 7 + 34$   
 $= 41$

Cevap: D

48.  $\begin{array}{r} KLM + ABC = 1524 \\ + \quad KLM - ABC = 226 \\ \hline 2KLM = 1750 \\ KLM = 875 \\ 8 + 7 + 5 = 20 \end{array}$

Cevap: A

$$\begin{array}{r}
 49. \quad a + b = 61 \\
 - / \quad b + c = 60 \\
 + \quad a + c = 79 \\
 \hline
 2a = 80 \\
 a = 40 \\
 b = 21 \\
 40 - 21 = 19
 \end{array}$$

Cevap: A

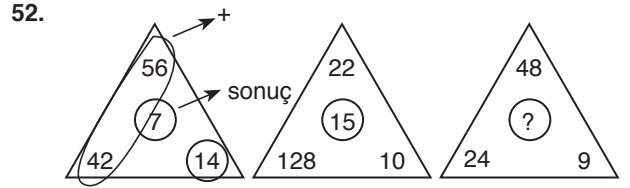
$$\begin{array}{l}
 50. \quad b + c = 35 \\
 a.b = 27 \\
 a.c = 18 \\
 \frac{b}{c} = \frac{3}{2} \\
 b = 3k, \quad c = 2k \text{ olsun.}
 \end{array}$$

$$\begin{array}{l}
 3k + 2k = 35 \\
 5k = 35 \\
 k = 7 \\
 a = ? \\
 a.b = 27 \\
 a.3k = 27 \\
 a.k = 9 \\
 a.7 = 9 \\
 a = \frac{9}{7}
 \end{array}$$

Cevap: A

$$\begin{array}{l}
 51. \quad \begin{array}{c} \text{Diagram: A circle divided into 8 sectors. Clockwise from top-right: } \\ \text{Sector 1: } 52 \text{ (top-right)} \rightarrow (5+2)(5-3) = 21 \\ \text{Sector 2: } 62 \text{ (right)} \rightarrow (6+2)(6-1) = 8.4 = 32 \\ \text{Sector 3: } ? \text{ (bottom-right)} \rightarrow (8+1)(8-1) = 9.7 = 63 \\ \text{Sector 4: } 3 \text{ (bottom)} \\ \text{Sector 5: } 21 \text{ (bottom-left)} \\ \text{Sector 6: } 32 \text{ (left)} \\ \text{Sector 7: } 81 \text{ (top-left)} \\ \text{Sector 8: } 21 \text{ (top)} \end{array}
 \end{array}$$

Cevap: C



$$\frac{56 + 42}{14} = 7$$

$$\frac{48 + 24}{9} = \frac{72}{9} = 8$$

Cevap: C

TASARI EĞİTİM YAYINLARI

53. İçten dışa doğru;

$$\frac{120}{4} = 30$$

$$\frac{120}{12} = 10$$

⋮

$$\frac{120}{?} = 1 \Rightarrow ? = 120$$

Cevap: D

54. A: 1 + 2 satır = 3. satır

$$6 + A = 11$$

$$A = 5$$

B: 1 - 4 satır = 2 satır

$$6 - B = A$$

$$6 - B = 5$$

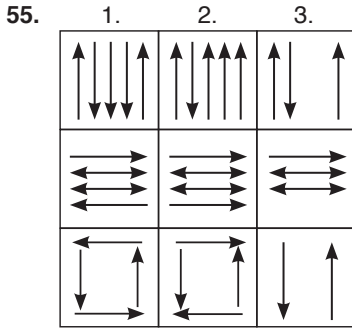
$$B = 1$$

$$A + B = ?$$

$$= 5 + 1 = 6$$

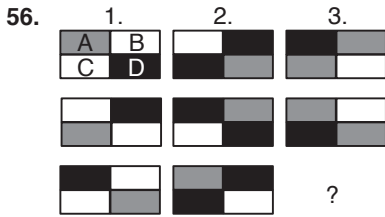
Cevap: B





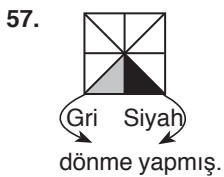
1 + 2 sütunu topladığımızda aynı yönlü oklar 3. sütuna yazılırken zıt yönlü oklar birbirini nötrlemiştir.

Cevap: C

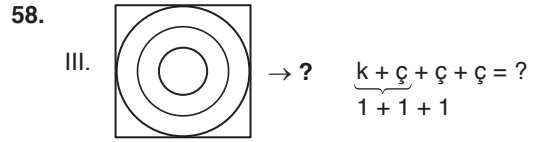


1. ve 2. sütunların aynı kutucuklarını topladığımızda 3. sütunda farklı bir renk elde edilmiştir.

Cevap: E



Cevap: B



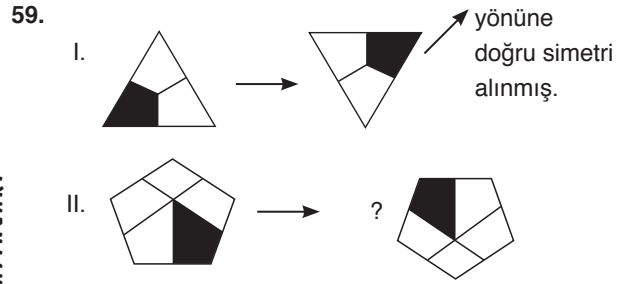
çember + kare = 1'li

çember = 1'i

üçgen = 3'ü

kare = 4'ü temsil ediyor.

Cevap: C



Cevap: E

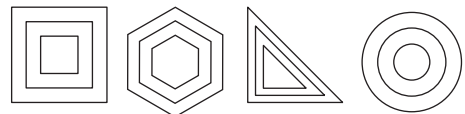
60. 2 yarım çember üst üste biner.

Cevap: C

61. İç bükey / konkav



Dış bükey (konveks)

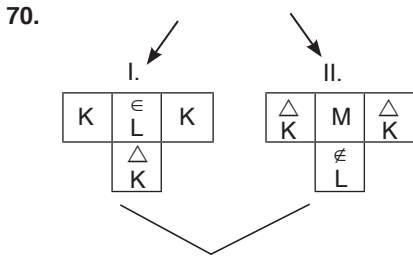


Cevap: A



69.  $a^{b+3} = 32 = 2^5$   
 $a^c = 64 = 2^6$  }  $a = 2$   
 $\frac{d}{c} = \frac{4}{3}$   
 $b+3 = 5 \Rightarrow b = 2$   
 $c = 6$   
 $\frac{d}{c} = \frac{d}{6} = \frac{4}{3}$   
 $d = 8$   
 $a + b + c + d = ?$   
 $2 + 2 + 6 + 8 = 18$

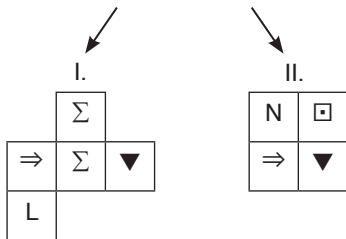
Cevap: E



şeklin içinden verilen 2 parça uygun yerler bulunur.

Cevap: B

71. 70. soru ile aynı çözüm mantığına sahip.



$K = \Sigma$        $N = ? \square$   
 $M = \blacktriangledown$        $L = ? \Rightarrow$

Cevap: D

72. En alt tabanda = 15  
 En 2. tabanda = 9  
 En 3. tabanda = 7  
 En 4. tabanda =  $\frac{+ 5}{36}$  adet

Cevap: C

73.  $\alpha = \frac{|11d - 60s|}{2}$   
 $\alpha = \frac{|11.18 - 60.4|}{2}$   
 $\alpha = |11.9 - 60.2|$   
 $21 = \alpha = |99 - 120|$

Cevap: E

74. 540° derece dönme 1 tur + 180° dönmesidir.  
 1. çark simetrisini alır.  
 2. çark simetrisini alır.  
 2. çark

$12r$        $\frac{1}{2}$  tur.  
 $8r$       ?  


---

 $312f \cdot \frac{1}{2} = 8f \cdot ?$   
 $\frac{3}{4}$  tur atar.

3. çark  $12r \frac{1}{2}$  tursa,  $4r \frac{3}{2}$  tur döner.

Cevap: D

75. 

7 	5 	3 	↑ sağ ←
7 	5 	3 	→ sol ↑
7 	5 	3 ?	↓ sağ →

Cevap: E

76.   
 $420^\circ = 60^\circ$  çevirdik

Cevap: D

77.  $\nabla ABCDE = CDABE$   
 $\square \triangle ABCDE = \square CDABE = CADEB$   
 $\triangle CADEB = BEDAC$   
 $\circ BEDAC = ACDBE$

Cevap: E

78.  $\ast \left(-\frac{2}{3}\right)$   
 $\frac{5}{6} - \frac{2}{3} = \frac{1}{6}$

Cevap: E

79.  $q_{20} = 2 + 3(1 + 2 + \dots + 19) = 2 + 3 \cdot \frac{19 \cdot 20}{2}$   
 $= 572$

$q_{42} = 2 + 3(1 + 2 + \dots + 41) = 2585$   
 $\Rightarrow 2585 + 572 = 3157$

Cevap: D

80. 

	(333)	(66)	
	3. satır	6. satır	
	3. sıra	2. sıra	
	↑	↑	
△	!	⊗	▽
↓	↓	↓	↓
4. satır	1. satır	5. satır	
2. sıra	2. sıra	1. sıra	
(44)	(11)	(5)	= 4433311665

Cevap: D