

**Deneme Sınavı**  
Trial Exam

**2**

**ÇÖZÜMLER**

**TAMAMI VIDEO ÇÖZÜMLÜ**

**VIDEO ÇÖZÜM UYGULAMASI İÇİN**





1. KUPA    KURS    ASUR    ARAP    SARP  
1245    1236    5623    5354    6534

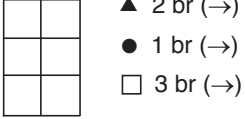
**PARKUR**  
453123

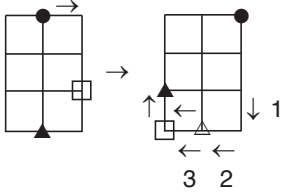
Cevap: B

2. KALIP    KAYIP    KAYIK    LAYIK    YARIK  
43125    43625    43624    13624    63724

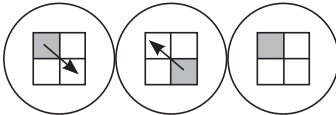
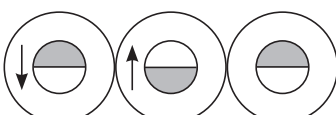
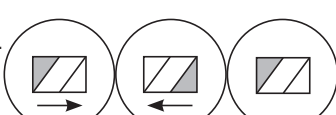
**PARLAK**  
537134

Cevap: D

3. 

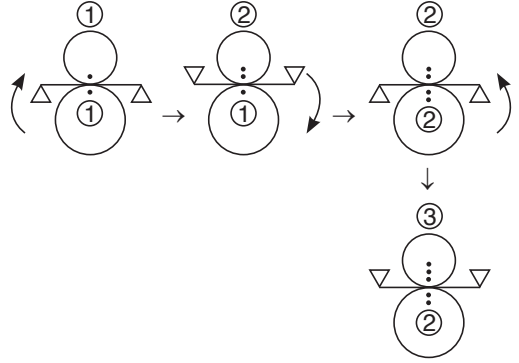


Cevap: D

4. I. 
- II. 
- III. 

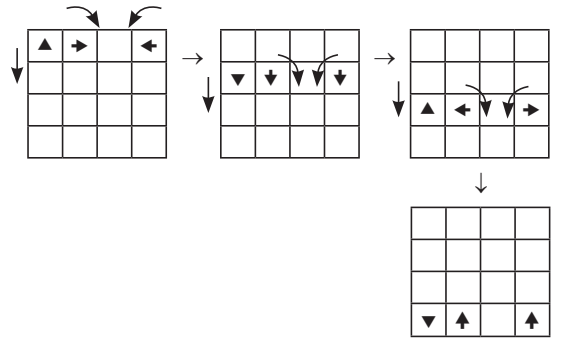
Cevap: B

5.



Cevap: E

6.



Cevap: C

$$7. (b \bullet c) \bullet (d \bullet b) = e \bullet a = a$$

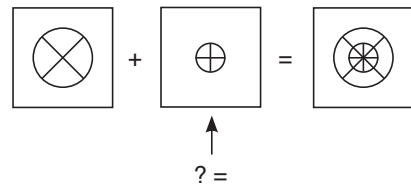
Cevap: A

$$8. (x \bullet d) \bullet a = c$$

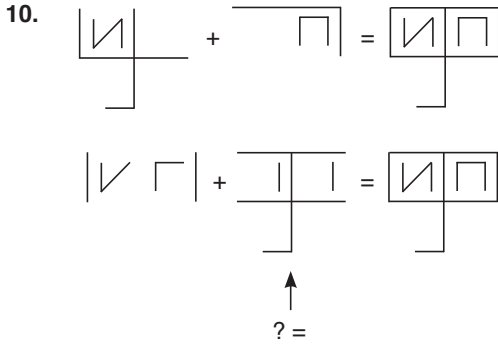
$$(x \bullet d) = b \quad x = c$$

Cevap: C

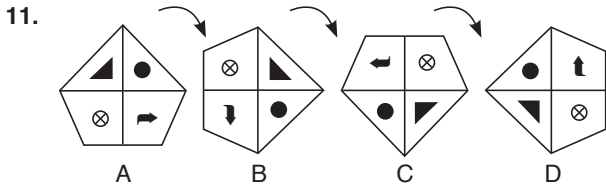
9.



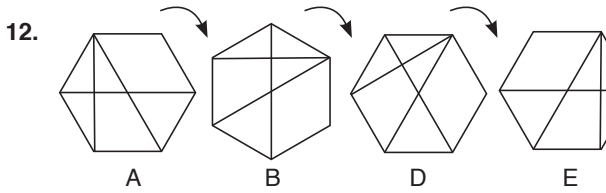
Cevap: C



Cevap: E



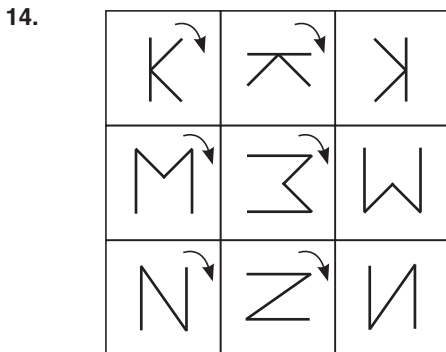
Cevap: E



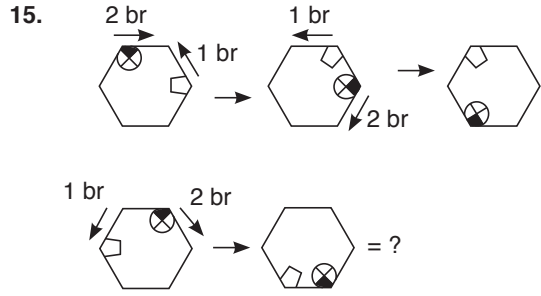
Cevap: C

13.  $4 + 3.5 = 4 + 15 = 19$   
 $6 + 4.4 = 6 + 16 = 22$   
 $8 + 4.3 = 8 + 12 = 20$

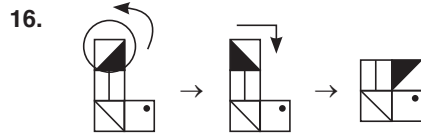
Cevap: C



Cevap: C



Cevap: A



Cevap: C

17.  $25 \cdot 2 = 50$   
 $50 - 5 = 45$

Cevap: C

18.  $9 + 5 = 14$

Cevap: D

19.  $a_n = 2^n + 1$   
 $n = 1 \Rightarrow 3$   
 $n = 2 \Rightarrow 5$   
 $n = 3 \Rightarrow 9$   
 $n = 4 \Rightarrow 17$   
 $n = 5 \Rightarrow 33$   
 $n = 6 \Rightarrow 65$   
 $n = 7, 2^7 + 1 = 129$

Cevap: C

TASARI EĞİTİM YAYINLARI

20.  $1^2 + 1 = 2$   
 $2^2 + 1 = 5$   
 $3^2 + 1 = 10$   
 $4^2 + 1 = 17$   
 $5^2 + 1 = 26$   
 $6^2 + 1 = 37$   
 $7^2 + 1 = 50$

Cevap: C

21.

1	2	3	...	50
1	5	9	...	x

$\underbrace{\quad\quad}_{+4}$      $\underbrace{\quad\quad}_{+4}$

$1 + 4 \cdot 49 = 1 + 196 = 197$

Cevap: D

22.  $\frac{12}{2\Delta 3} = \frac{2}{2} + \frac{3}{3}$   
 $\frac{12}{2\Delta 3} = 2 \quad 2\Delta 3 = 6$

Cevap: A

23.  $2^x \blacksquare 3^y = 2x + 3y + 2$   
 $\left(8 \blacksquare \frac{1}{9}\right) \blacksquare 9 = (2^3 \blacksquare 3^{-2}) \blacksquare 3^2$   
 $2^3 \blacksquare 3^{-2} = 6 - 6 + 2 = 2$   
 $2^1 \blacksquare 3^2 = 2 + 6 + 2 = 10$

Cevap: A

24.  $a + a = b$   
 $a + c = 18$   
 $b + c = 30$   
 $\boxed{2a = b}$   
 $- / a + c = 18$   
 $2a + c = 30$   

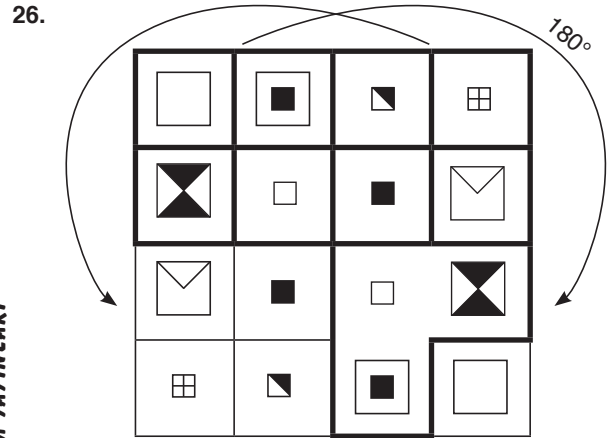

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 $\boxed{a = 12} \quad \boxed{b = 24} \quad \boxed{c = 6}$   
 $b - c = 24 - 6 = 18$

Cevap: C

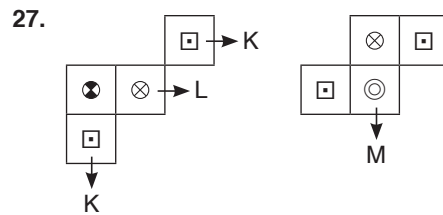
25.  $a + b = 14 \quad \frac{a \cdot \phi}{b \cdot \phi} = \frac{16}{12} \quad \frac{a}{b} = \frac{4}{3}$   
 $a + c = 10$   
 $a = 4k \quad 7k = 14$   
 $b = 3k \quad \boxed{k = 2}$   
 $\boxed{a = 8} \quad \boxed{b = 6} \quad \boxed{c = 2}$   
 $b + c = 6 + 2 = 8$

Cevap: B



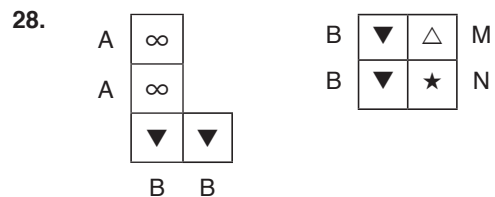
Cevap: A

Cevap: E



Cevap: A

Cevap: B



Cevap: C

Cevap: C

29.  $8 + 3 = 11$        $11.3 = 33$   
 $7 + 6 = 13$        $13.3 = 39$   
 $6 + 12 = 18$        $18.3 = 54$   
 $4 + 8 = 12$        $12.3 = 36$

Cevap: C

30.  $4^3 + 4^2 + 4^1 = 64 + 16 + 4 = 84$

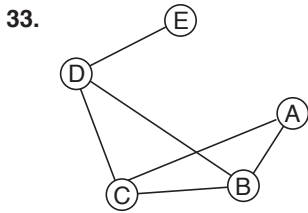
Cevap: A

31.  $4 + 5 - 6 = 3$   
 $8 + 12 - 5 = 15$   
 $5 + 7 - 2 = 10$   
 $10 + 11 - 8 = 13$

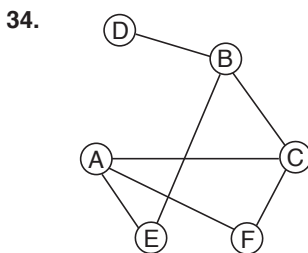
Cevap: A

32.  $3 \cdot \left( 3.3 + 2.4 + \frac{1}{2} \right) = 3 \cdot (9 + 8 + 2) = 3.19 = 57$

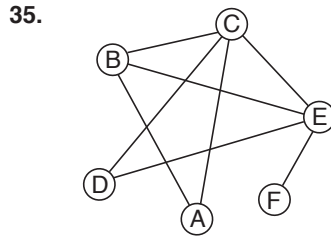
Cevap: D



Cevap: D



Cevap: B

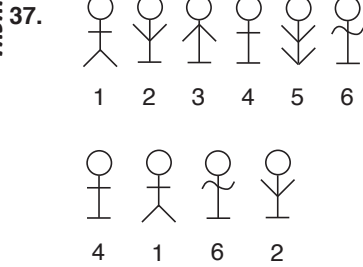


Cevap: D

36.

	8	4	5	17	← 8 + 4 + 5
	3	2	6	11	← 3 + 2 + 6
	1	7	9	17	← 1 + 7 + 9
8 + 3 + 1 →	12	13	20	45	
		↓	↓		
		4 + 2 + 7	17 + 11 + 17		

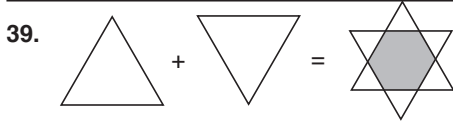
Cevap: E



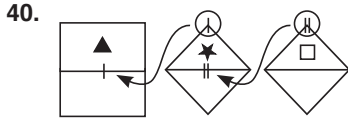
Cevap: A

38.  $\odot \bar{\cap} \triangle \neq = 1973$   
 $\neq \odot \# \bar{\cap} = 3129$   
 $\# \neq \odot \triangle = 8317$   
 $\triangle \# \# \neq = 7283$   
 $\# \triangle \bar{\cap} \odot = 2791$   
 $\bar{\cap} \neq \# \odot = 9321$

Cevap: C



Cevap: B



Cevap: D

41.  $\bullet + \blacksquare = \blacktriangle$

$\blacktriangle + 2\bullet = 2\blacksquare + \bullet \Rightarrow \blacktriangle + \bullet = 2\blacksquare$

$\bullet + \blacksquare + \bullet = 2\blacksquare$

$2\bullet = \blacksquare$

$3\bullet = \blacktriangle$

$\blacktriangle + \blacksquare + 2\bullet = 3\bullet + 2\bullet + 2\bullet = 7\bullet$

$\blacktriangle + \blacktriangle + \bullet = 3\bullet + 3\bullet + \bullet = 7\bullet$

Cevap: D

42.  $\blacksquare = 4\bullet$

$2\blacktriangle = \blacksquare + \bullet = 5\bullet$

$2\blacksquare = 8\bullet$

$2\blacktriangle + \bullet = 5\bullet + \bullet = 6\bullet$

$5\bullet + 3\bullet = 8\bullet$

Cevap: D

43.  $\frac{a+b}{2} = 10 \quad a+b = 20$

$a-c = 8 \quad 3c-c = 8 \quad 2c = 8 \quad \boxed{c=4}$

$\frac{a}{c} = 3 \quad a = 3c$

$\boxed{d=3} \quad \boxed{a=12}$

$\boxed{b=8}$

$K = b - d = 8 - 3 = 5$

Cevap: B

44.  $\boxed{c=3}$

$\frac{a}{c} = 2 \quad \boxed{a=6}$

$b-d = 3 \quad \boxed{b=8}$

$c \cdot d = 15 \quad \boxed{d=5}$

$K = \frac{a+b}{2} = \frac{6+8}{2} = 7$

$L = a - c = 6 - 3 = 3$

$K + L = 7 + 3 = 10$

Cevap: D

45.  $c \cdot d = c^5$

$d = c^4 \quad \boxed{c=2} \quad \boxed{d=16}$

$\frac{b}{d} = c \quad \frac{b}{16} = 2 \quad \boxed{b=32}$

$\frac{a}{c} = 1 \quad \frac{a}{2} = 1 \quad \boxed{a=2}$

$M = \frac{2+32}{2} = 17$

$K = 32 - 16 = 16$

$K + M = 16 + 17 = 33$

Cevap: D

$$46. \left(\frac{1}{3} + \frac{1}{7} - \frac{1}{2}\right) - \left(\frac{1}{3} + \frac{1}{2} - \frac{1}{7}\right) = \frac{\frac{2}{3}}{7} - 1 = -\frac{5}{7}$$

Cevap: A

$$47. \frac{1+99}{\frac{2}{10} \cdot 100} = \frac{100}{\frac{2}{10} \cdot 100} = \frac{10}{2} = 5$$

Cevap: C

$$48. \frac{2\sqrt{4.2} + \sqrt{16.2} - (2\sqrt{2} + \sqrt{9.2})}{\sqrt{9.2}}$$

$$= \frac{4\sqrt{2} + 4\sqrt{2} - (2\sqrt{2} + 3\sqrt{2})}{3\sqrt{2}}$$

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

Cevap: A

$$49. 0,50x = 0,5$$

$$x = 1$$

Cevap: C

$$50. 3x = 5y \Rightarrow x = 5k \quad y = 3k$$

$$2x - 3y = 10k - 9k = k = \frac{3}{2}$$

$$x = \frac{15}{2} \quad y = \frac{9}{2} \quad x + y = \frac{15+9}{2} = \frac{24}{2} = 12$$

Cevap: E

$$51. \sqrt[3]{27.2} - \sqrt[3]{8.2} + \sqrt[3]{125.2} = 3\sqrt[3]{2} - 2\sqrt[3]{2} + 5\sqrt[3]{2}$$

$$= 6\sqrt[3]{2}$$

Cevap: D

$$52. (\sqrt{x} + \sqrt{y})^2 = (5)^2$$

$$x + 2 \cdot \frac{\sqrt{x} \cdot y}{4} + y = 25$$

$$x + 4 + y = 25 \quad x + y = 21$$

Cevap: B

$$53. a - b = 4$$

$$+ \frac{b - c = 6}{a - c = 10}$$

$$a^2 - ac - ab + bc = a \cdot (a - c) - b \cdot (a - c)$$

$$= \frac{(a - b)}{4} \cdot \frac{(a - c)}{10} = 40$$

Cevap: E

$$54. (6^{a-1})^y = (6^a \cdot \frac{1}{6})^y = (24 \cdot \frac{1}{6})^y = 4^y = (2^y)^2 = 3^2 = 9$$

Cevap: A

$$55. \frac{(x-4) \cdot (x+2)}{(x-3)(x+1)} \cdot \frac{(x-1)(x+1)}{(x+2)(x-1)} = \frac{x-4}{x-3}$$

$$x^2 + 2x - 4x - 8 = x^2 - 2x - 8 = x^2 + ax + b$$

a = -2	b = -8
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Cevap: C

Cevap: A

$$56. x^2 + 3 = 5x$$

$$x + \frac{3}{x} = 5 \quad x^2 + 2x \cdot \frac{3}{x} + \frac{5}{x^2} = 25$$

$$x^2 + \frac{9}{x^2} = 19$$

Cevap: C

$$57. \begin{array}{r|l} x^3 - x^2 + x + 3 & x + 1 \\ - / x^3 + x^2 & x^2 - 2x + 3 \\ \hline -2x^2 + x + 3 & \\ - / -2x^2 - 2x & \\ \hline 3x + 3 & \\ - / 3x + 3 & \\ \hline 0 & \end{array}$$

Cevap: A



$$58. \log_{\frac{1}{2}}(\log_2(\log_x 81)) = -1$$

$$(\log_2(\log_x 81)) = \left(\frac{1}{2}\right)^{-1} = 2$$

$$\log_x 81 = 2^2 = 4$$

$$x^4 = 81 \quad \boxed{x = 3}$$

Cevap: B

$$59. \log_8 8 \cdot \log_8 4 = a \cdot b$$

$$\log_8 4 = a \cdot b$$

$$\log_{2^3} 2^2 = a \cdot b \Rightarrow \frac{2}{3} = a \cdot b$$

Cevap: D

$$60. \lim_{x \rightarrow 3^+} \frac{3 - |x|}{(x-3)(x+3)} = \lim_{x \rightarrow 3^+} \frac{(3-x)}{(x-3)(x+3)}$$

$$= \lim_{x \rightarrow 3^+} \frac{-1}{x+3} = -\frac{1}{6}$$

Cevap: A

$$61. b \in \mathbb{R} \quad a - 2 = 0$$

$$a = 2$$

$$\lim_{x \rightarrow \infty} \frac{3x^2}{2x^2 + 2x + 3} = \frac{3}{2} = b$$

$$a + b = 2 + \frac{3}{2} = \frac{7}{2}$$

Cevap: E

$$62. \lim_{x \rightarrow 5} \frac{\sin(x-5)}{x^2 - 25} = \frac{0}{0}$$

$$\lim_{x \rightarrow 5} \frac{\cos(x-5)}{2x} = \frac{\cos 0}{10} = \frac{1}{10}$$

Cevap: E

$$63. f(5^x + 1) = 5^{x-1} - 2$$

$$f^{-1}(5^{x-1} - 2) = 5^x + 1$$

$$5^{x-1} - 2 = 23$$

$$5^{x-1} = 25$$

$$x - 1 = 2 \quad \boxed{x = 3}$$

$$f^{-1}(23) = 5^3 + 1 = 126$$

Cevap: B

$$64. f(2x + 1) = x^3 + x^2 - 5x + \frac{1}{2}$$

$$f'(2x + 1) \cdot 2 = 3x^2 + 2x - 5 \quad \boxed{x = 0}$$

$$f'(1) \cdot 2 = -5$$

$$f'(1) = -\frac{5}{2}$$

$$\boxed{x = 0} \quad f'(1) = \frac{1}{2}$$

$$f'(1) + f(1) = -\frac{5}{2} + \frac{1}{2} = -\frac{4}{2} = -2$$

Cevap: A

$$65. f(x) = (\cos^2 3x - \sin^2 3x) \cdot (\cos^2 3x + \sin^2 3x) \cdot \sin 6x$$

$$\cos 6x \quad 1$$

$$f(x) = \cos 6x \cdot \sin 6x = \frac{\sin 12x}{2}$$

$$f'(x) = \frac{\cos 12x \cdot 12}{2} = 6 \cdot \cos 12x$$

$$f'\left(\frac{\pi}{48}\right) = 6 \cdot \cos \frac{\pi}{4} = 6 \cdot \frac{\sqrt{2}}{2} = 3\sqrt{2}$$

Cevap: C

$$66. \frac{dy}{dx} = -\frac{3x^2 - 4xy^3}{3y^2 - 6x^2y^2}$$

$$x = 2$$

$$y = 1$$

$$-\frac{12 - 8}{3 - 24} = \frac{-4}{-21} = \frac{4}{21}$$

Cevap: D

$$67. \int_0^{\pi/2} \frac{\sin 2x}{\sin x} dx = \int_0^{\pi/2} \frac{2 \sin x \cos x}{\sin x} dx$$

$$= \int_0^{\pi/2} 2 \cos x dx = 2 \sin x \Big|_0^{\pi/2}$$

$$= 2 - 0 = 2$$

Cevap: C

$$68. a = 3 \text{ için } 3^3 + 3 \cdot 3^2 + 2 \equiv ? \pmod{7}$$

$$27 + 27 + 2 \equiv ? \pmod{7}$$

$$56 \equiv 0 \pmod{7}$$

Cevap: A

$$69. x \text{ yıl sonra}$$

Baba:  $54 + x$  olur.

Çocuklar sırasıyla  $(10+x)$ ,  $(12+x)$  ve  $(20+x)$  olur.

$$54 + x = (10 + x) + (12 + x) + (20 + x)$$

$$54 + x = 42 + 3x$$

$$54 - 42 = 3x - x$$

$$12 = 2x$$

$$6 = x \text{ dir.}$$

Cevap: D

70. Küçük sayı  $x$ , büyük sayı  $(x+3)$  olur.

$$2 \cdot x + (x + 3) = 60$$

$$2x + x + 3 = 60$$

$$3x = 60 - 3$$

$$3x = 57$$

$$x = 19$$

$$\text{Büyük sayı: } x + 3 = 19 + 3 = 22$$

$$\text{Bu iki sayının toplamı } 19 + 22 = 41 \text{ olur.}$$

Cevap: D

$$71. \frac{1}{1+i} + x + yi = 1 - i$$

$$(1-i)$$

$$\frac{1-i}{2} + x + yi = 1 - i$$

$$x + yi = 1 - i - \frac{1-i}{2} = \frac{2-2i-1+i}{2}$$

$$x + yi = \frac{1-i}{2} \quad x = \frac{1}{2} \quad y = -\frac{1}{2}$$

$$x + yi = \frac{1}{2} - \frac{1}{2}i \quad x \cdot y = -\frac{1}{4}$$

Cevap: B

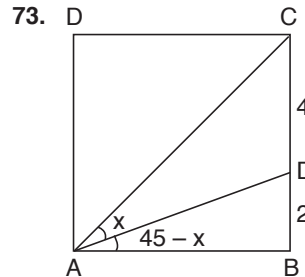
$$72. \frac{\sin^2 x + 2 \sin x \cos x + \cos^2 x}{\sin x} - 2 \cos x$$

$$= \frac{1 + 2 \sin x \cos x}{\sin x} - 2 \cos x$$

$$= \frac{1 + \cancel{2 \sin x \cos x} - \cancel{2 \sin x \cos x}}{\sin x}$$

$$= \frac{1}{\sin x} = \operatorname{cosec} x$$

Cevap: A



$$\tan(45 - x) = \frac{1}{3}$$

$$\frac{\tan 45 - \tan x}{1 + \tan 45 \cdot \tan x} = \frac{1}{3}$$

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

$$3 - 3 \tan x = 1 + \tan x$$

$$2 = 4 \tan x$$

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

Cevap: E

74.  $\begin{bmatrix} 2 & -2 \\ 3 & 1 \\ -1 & 2 \end{bmatrix} \begin{bmatrix} 1 \\ 4 \\ -2 \end{bmatrix} = \begin{bmatrix} 2+4 & \cdot & \cdot \\ \cdot & 12+1 & \cdot \\ \cdot & \cdot & 1+6 \end{bmatrix}$

a = 6

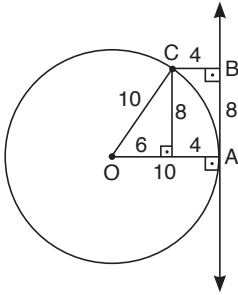
b = 13

c = 7

a + b + c = 6 + 13 + 7 = 26

Cevap: D

75.

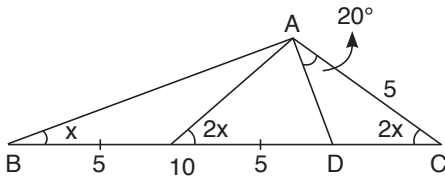


IABI = 8

BA ⊥ AO  
CB ⊥ BA  
|OA| = r = 10  
|BC| = 4

Cevap: D

76.



6x + 40 = 180

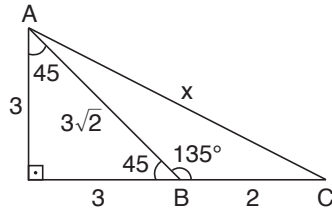
6x = 140

3x = 70

x = 70/3

Cevap: B

77.



3<sup>2</sup> + 5<sup>2</sup> = x<sup>2</sup>

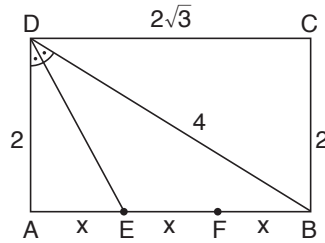
9 + 25 = x<sup>2</sup>

34 = x<sup>2</sup>

√34 = x

Cevap: A

78.

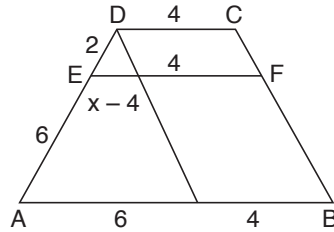


3x = 2√3

x = 2√3/3

Cevap: C

79.



2/4 = (x-4)/6

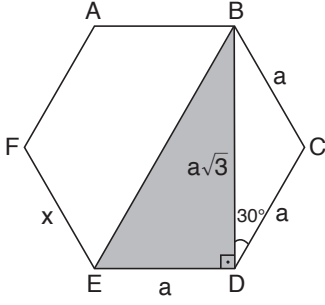
6 = 4x - 16

22 = 4x

11/2 = x

Cevap: B

80.



$$\frac{a \cdot a \sqrt{3}}{2} = 18 \sqrt{3}$$

$$a^2 = 36$$

$$a = 6$$

$$x = 6$$

Cevap: E