

Deneme Sınavı

Trial Exam

11

ÇÖZÜMLER

TAMAMI VİDEO ÇÖZÜMLÜ

VİDEO ÇÖZÜM UYGULAMASI İÇİN



ÇÖZÜMLER

1. $2 = 1^2 + 1$

$$6 = 2^2 + 2$$

$$12 = 3^2 + 3$$

⋮

$$? = 10^2 + 10$$

Cevap: D

2. $\triangle \rightarrow 1, 3, 9, 27, 81$

$$\Rightarrow 3^0, 3^1, 3^2, 3^3, 3^4, \dots$$

$$\square = \triangle \times 2 \Rightarrow \triangle = 81 \Rightarrow \square = 81 \cdot 2 = 162$$

(Solundaki üçgen içinin 2 katı)

Cevap: A

3. $\begin{array}{|c|c|} \hline 5 & 4 \\ \hline 6 & 3 \\ \hline \end{array} \rightarrow \left. \begin{array}{l} 5 \cdot 4 = 20 \\ 6 - 3 = 3 \end{array} \right\} \Rightarrow 20 - 3 = 17$

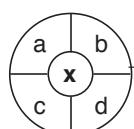
$$\begin{array}{|c|c|} \hline 6 & 3 \\ \hline 5 & 1 \\ \hline \end{array} \rightarrow \left. \begin{array}{l} 6 \cdot 3 = 18 \\ 5 - 1 = 4 \end{array} \right\} \Rightarrow 18 - 4 = 14$$

$$\begin{array}{|c|c|} \hline 8 & 5 \\ \hline 2 & 1 \\ \hline \end{array} \rightarrow \left. \begin{array}{l} 8 \cdot 5 = 40 \\ 2 - 1 = 1 \end{array} \right\} \Rightarrow 40 - 1 = 39$$

$$\begin{array}{|c|c|} \hline 4 & 3 \\ \hline 5 & 4 \\ \hline \end{array} \rightarrow \left. \begin{array}{l} 4 \cdot 3 = 12 \\ 5 - 4 = 1 \end{array} \right\} \Rightarrow 12 - 1 = 11$$

Cevap: A

4. $\begin{array}{c} a \\ b \\ c \\ d \\ x \end{array} \rightarrow a.b - c.d = x$



$$\Rightarrow \begin{array}{c} 10 \\ 5 \\ ? \\ 3 \\ 4 \end{array} \rightarrow 10 \cdot 3 - 5 \cdot 4 = 30 - 20 = 10$$

Cevap: D

5. $K = 4 \quad I = 2 \quad A = 5 \quad S = 6 \quad N = 7 \quad M = 3$

$$\Rightarrow \text{MASA} = 3565$$

Cevap: B

6. $A = 7 \quad E = 9 \quad F = 2 \quad N = 4 \quad R = 5 \quad T = 3$

$$\Rightarrow \text{TER} = 395$$

Cevap: B

7. $A = 3 \quad E = 5 \quad i = 6 \quad N = 1 \quad Y = 4 \quad Z = 2$

$$\Rightarrow \text{NAZ} = 132$$

Cevap: A

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8. $A = 7 \quad H = 6 \quad N = 5 \quad R = 8 \quad U = 9$

$$\Rightarrow \text{RUH} = 896$$

Cevap: C

9. $A = 5 \quad E = 6 \quad i = 7 \quad M = 4 \quad T = 2 \quad \$ = 3$

$$\Rightarrow \text{\$EMA} = 3645$$

Cevap: E

10. $\triangle \rightarrow a, \bullet \rightarrow b, \square \rightarrow c$

I. $3a = 2b \quad$ II. $3b = 2c \quad$ III. $2C = ?$

$$\frac{a}{b} = \frac{2.2k}{3.2k} = \frac{4k}{6k} \quad \frac{b}{c} = \frac{2.3}{3.3} = \frac{6k}{9k}$$

$$\begin{cases} \triangle = 4k \\ \bullet = 6k \\ \square = 9k \end{cases} \Rightarrow 2c = 2.9k = 18k$$

Seçeneklerden D seçeneği

$$\triangle \triangle \triangle = 4k + 4k + 4k + 6k = 18k$$

Cevap: D

11. $\blacksquare \rightarrow a$, $\blacktriangle \rightarrow b$, $\bullet \rightarrow c$

I. $a+b = 2c$, II. $3c = 2b$, III. $b = ?$

$$\begin{aligned} \blacktriangle &= 3k \\ \blacksquare &= k \\ \bullet &= 2k \end{aligned} \Rightarrow 1 \times \blacktriangle = 3k = 2k + k = 1 \times \bullet + 1 \times \blacksquare$$

Cevap: B

12. $\oplus \rightarrow a$, $\boxplus \rightarrow b$, $\triangle \rightarrow c$

I. $2a = b+2c$, II. $3a = 2b+c$, III. $b = ?$

$$\begin{aligned} \triangle &= k \\ \oplus &= 3k \\ \boxplus &= 4k \end{aligned} \Rightarrow 1 \times \boxplus = 4k = 3k + k = 1 \times \oplus + 1 \times \triangle$$

Cevap: A

13. $a - 3 = 10 \Rightarrow a = 13$

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

$\Rightarrow 10 \oplus 3 = 13 - 1 - 4 = 8$

Cevap: C

14. $a^3 = 27 \Rightarrow a = 3$

$\sqrt[3]{b-1} = 2 \Rightarrow b-1 = 8 \Rightarrow b = 9$

$\Rightarrow 27 \triangle 2 = 3 + 9 + 1 = 13$

Cevap: C

15. $6 \square 5 = 28 \Rightarrow (6+1)(5-1) = 28$

$7 \square 3 = 16 \Rightarrow (7+1)(3-1) = 16$

$8 \square 4 = 27 \Rightarrow (8+1)(4-1) = 27$

$\Rightarrow a \square b = (a+1)(b-1)$

Cevap: B

16. $3a = 27 \Rightarrow a = 9$
 $2b = 12 \Rightarrow b = 6$

$$\begin{aligned} 3a = 3 \Rightarrow a = 1 \\ 2b = 4 \Rightarrow b = 2 \end{aligned} \Rightarrow 3 \odot 4 = 1 + 2 = 3$$

$(27 \odot 15) \square (3 \odot 4) = 15 \square 3$

$\Rightarrow 2a + 1 = 15 \Rightarrow 2a = 14 \Rightarrow a = 7$

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

$\Rightarrow 15 \square 3 = 7 - 2 \cdot 2 = 7 - 4 = 3$

Cevap: E

17. $a + a = 3a - 8 \Rightarrow a = 8$

$b + b = a - 2 \Rightarrow 2b = 6 \Rightarrow b = 3$

$c + c = b + 5 \Rightarrow 2c = 8 \Rightarrow c = 4$

Cevap: C

18. $\begin{aligned} b^2 &= 2a \\ c^2 &= 18a \end{aligned} \Rightarrow b^2 \cdot c^2 = 36a^2 \Rightarrow b \cdot c = 6a$

$\Rightarrow bc = 108 = 6a \Rightarrow a = 18$

$\Rightarrow b^2 = 36 \Rightarrow b = 6$

Cevap: E

19. $\begin{aligned} a + b &= c + 7 \\ b + c &= 4a - 7 \Rightarrow c + 7 = 4a - b \end{aligned} \Rightarrow a + b = 4a - b \Rightarrow 2b = 3a$

$\Rightarrow a = 2k, b = 3k$

$\Rightarrow a \cdot b = 6k^2 = 96 \Rightarrow k^2 = 16 \Rightarrow k = 4$

$\Rightarrow a = 8, b = 12 \Rightarrow c + 7 = 8 + 12 \Rightarrow c = 13$

Cevap: D

20. $m + 1 + b = m + 5 \Rightarrow b = 4$

$n - 1 + d = n + 1 \Rightarrow d = 2$

$\Rightarrow L = b:d \Rightarrow L = 4:2 = 2$

Cevap: E

21. $\begin{aligned} a + b &= 18 \\ a - b &= 6 \end{aligned} \Rightarrow 2a = 24 \Rightarrow a = 12 \Rightarrow b = 6$

$\Rightarrow a \cdot c = 36 \Rightarrow 12 \cdot c = 36 \Rightarrow c = 3$

$\Rightarrow c + d = 5 \Rightarrow 3 + d = 5 \Rightarrow d = 2$

$\Rightarrow M = 6:2 = 3, L = 3 - 2 = 1 \Rightarrow M + L = 4$

Cevap: C

22. $a - (n-2) = -n + 7 \Rightarrow a - n + 2 = -n + 7 \Rightarrow a = 5$

$c - (k+1) = -k + 7 \Rightarrow c - k - 1 = -k + 7 \Rightarrow c = 8$

$\Rightarrow M = a \cdot c = 40$

Cevap: E

23. $a + n + 2 = n + 20 \Rightarrow a = 18$

$m - 2 + d = m + 4 \Rightarrow d = 6$

$$\Rightarrow K.L = (a:b).(b:d) = \frac{a}{b} \cdot \frac{b}{d} = \frac{a}{d} = \frac{18}{6} = 3$$

Cevap: D

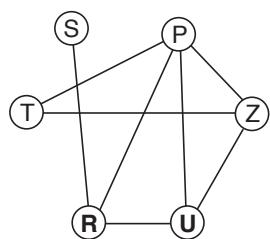
24. $a + n - 3 = n + 4 \Rightarrow a = 7$

$a.c = 28 \Rightarrow c = 4$

$$\Rightarrow L + M = (c + d) + (c - d) = 2c = 8$$

Cevap: A

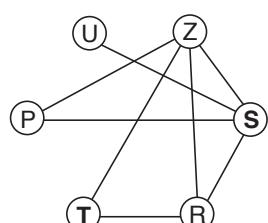
25.



$$\Rightarrow X = R ; Y = U$$

Cevap: B

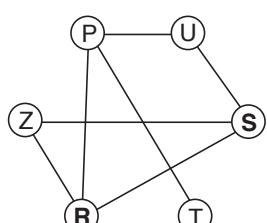
26.



$$\Rightarrow X = S ; Y = T$$

Cevap: D

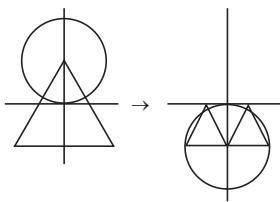
27.



$$\Rightarrow X = R ; Y = S$$

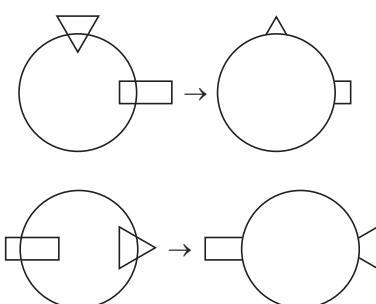
Cevap: D

28.



Cevap: A

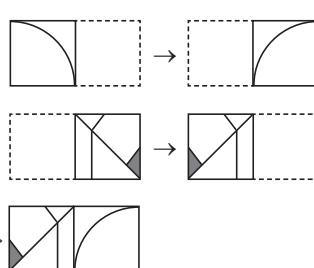
29.



Cevap: B

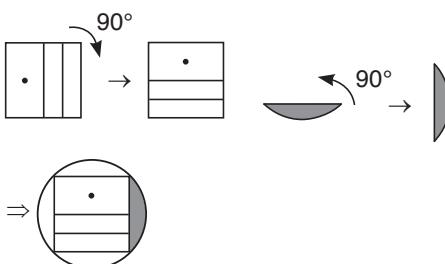
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30.

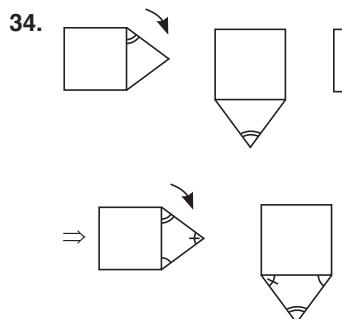
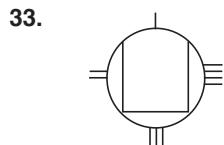
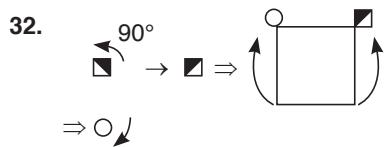


Cevap: C

31.



Cevap: A

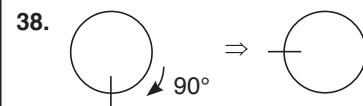


36. $A = 3$, $B = 5$, $C = 6 \Rightarrow 653$

$$\begin{array}{r} 65 \\ + \quad 6 \\ \hline 724 \end{array}$$

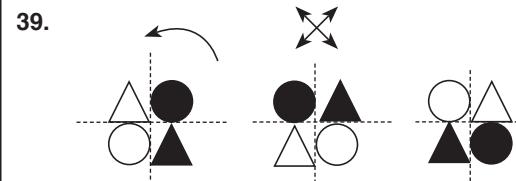


Cevap: B



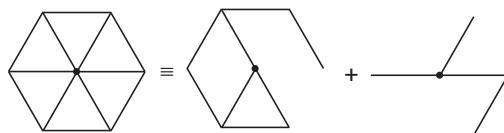
Cevap: E

Cevap: C



Cevap: D

40.

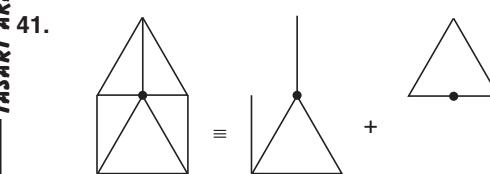


Cevap: C

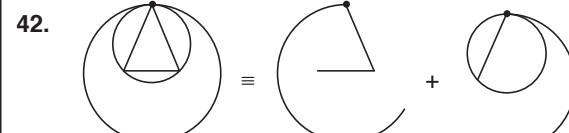
Cevap: E

Cevap: D

Cevap: B



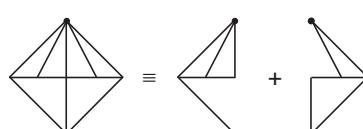
Cevap: B



Cevap: C

Cevap: E

43.



Cevap: C

44. $N \rightarrow 90^\circ \rightarrow 20 \rightarrow \frac{20}{90} = \frac{2}{9}$

$$P \rightarrow 27^\circ \rightarrow 6 \rightarrow \frac{6}{27} = \frac{2}{9}$$

$$\rightarrow 90^\circ + 27^\circ + 72 + 45^\circ = 234^\circ$$

$$\rightarrow 360^\circ - 234^\circ = 126^\circ \text{ (T)}$$

$$\rightarrow \frac{T}{126} = \frac{2}{9} \Rightarrow 9T = 252 \Rightarrow T = 28$$

$$\left. \begin{array}{l} 3-1=2 \\ 2-1=1 \\ 4-3=1 \\ 5-2=3 \end{array} \right\}$$

46. $\frac{2^{x-7} (2^2 + 2^1 + 1)}{2^{x-10} (2^2 + 2^1 + 2)}$
 $= \frac{2^{x-7}}{2^{x-10}} = 2^{x-7-x+10} = 2^3 = 8$

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

48. $x = \sqrt{5} - \sqrt{2} - \sqrt{3}$

$y = \sqrt{3} + \sqrt{2} - \sqrt{5}$

$\Rightarrow y = -x$

$$\frac{x^2 + y^2}{x \cdot y} = \frac{x^2}{xy} + \frac{y^2}{xy} = \frac{x}{y} + \frac{y}{x} = \frac{x}{-x} + \frac{-x}{x}$$

$= -1 - 1 = -2$

Cevap: A

49. $\frac{10}{-1 + \frac{18}{1 + \frac{6}{x-2}}} = 2 \Rightarrow -1 + \frac{18}{1 + \frac{6}{x-2}} = 5$

$$\frac{18}{1 + \frac{6}{x-2}} = 6 \Rightarrow 1 + \frac{6}{x-2} = 3 \Rightarrow \frac{6}{x-2} = 2$$

$\Rightarrow x = 2$

Cevap: E

Cevap: A

50. $\frac{(3^2 + 1)(3^4 - 3^2 + 1)}{3^4 - 8} + \frac{(2^4 - 1)(2^8 + 2^4 + 1)}{2^8 + 17}$
 $= \frac{10 \cdot (3^4 - 8)}{3^4 - 8} + \frac{15 \cdot (2^8 + 17)}{2^8 + 17} = 25$

Cevap: C

Cevap: D

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51. $\frac{1}{x-5} = A \Rightarrow \frac{1}{x^2 - 10x + 25} = A^2$
 $\Rightarrow A^2 + A = 0 \Rightarrow A(A + 1) = 0$
 $\Rightarrow A = 0, A = -1 \Rightarrow \frac{1}{x-5} \neq 0 \Rightarrow \frac{1}{x-5} = -1$
 $\Rightarrow x - 5 = -1 \Rightarrow x = 4$

Cevap: A

Cevap: B

52. $f(x) = |x - 3| - |2x + 6| = 0$
 $\Rightarrow |x - 3| - |2x + 6| \Rightarrow x_1 - 3 = 2x_1 + 6, \quad x_2 - 3 = -2x_2 - 6$
 $\Rightarrow x_1 = -9, \quad 3x_2 = -3 \Rightarrow x_1 = -9, \quad x_2 = -1$
 $\Rightarrow x_1 + x_2 = -10$

Cevap: A

Cevap: D

53. $3a + \frac{2}{b} = 4 \Rightarrow \frac{3ab + 2}{b} = 4 \Rightarrow 3ab + 2 = 4b$
 $b + \frac{2}{3a} = 3 \Rightarrow \frac{3ba + 2}{3a} = 3 \Rightarrow 3ab + 2 = 9a$
 $\Rightarrow 4b = 9a$
 $\Rightarrow b = 9k \quad a = 4k \quad \frac{a}{b} = \frac{4}{9}$

Cevap: B

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

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

$$\Rightarrow 4x^2 + \frac{1}{x^2} = 40$$

Cevap: E

55. $(x - 1)(x^2 + x + 1) = 0 \cdot (x - 1)$

$$\Rightarrow x^3 - 1 = 0 \Rightarrow x^3 = 1$$

$$\begin{aligned} \Rightarrow x^{18} + x^{12} + x^8 + x &= (x^3)^6 + (x^3)^4 + (x^3)^2 \cdot x^2 + x \\ &= 1^6 + 1^4 + 1^2 \cdot x^2 + x = 1 + 1 + x^2 + x \end{aligned}$$

$$\Rightarrow x^2 + x = -1 \Rightarrow 1 + 1 + x^2 + x = 1 + 1 - 1 = 1$$

Cevap: E

56. $2017 = x \quad 2016 = x - 1 \quad 2018 = x + 1 \quad 2019 = x + 2$

$$\begin{vmatrix} 2017 & 2016 \\ 2018 & 2019 \end{vmatrix} = \begin{vmatrix} x & x - 1 \\ x + 1 & x + 2 \end{vmatrix}$$

$$= x \cdot (x + 2) - (x + 1)(x - 1) = x^2 + 2x - x^2 + 1$$

$$= 2x + 1 = 2 \cdot 2017 + 1 = 4035$$

Cevap: D

57. $\vec{A} \parallel \vec{B} \Rightarrow \frac{k-3}{k-2} = \frac{k+1}{k-3} \Rightarrow k^2 - 6k + 9 = k^2 - k - 2$

$$\Rightarrow 11 = 5k \Rightarrow k = \frac{11}{5}$$

Cevap: E

58. $3\vec{K} = (-3 \cdot 3, 4 \cdot 3) = (-9, 12)$

$$4\vec{T} = (2 \cdot 4, -1 \cdot 4) = (8, -4)$$

$$\Rightarrow 3\vec{K} + 4\vec{T} = (-9, +8, 12 - 4) = (-1, 8) = (a, b)$$

$$\Rightarrow a + b = -1 + 8 = 7$$

Cevap: D

59. $f(2) = f(0 + 2) = 0 - 7 = -7$

$$f(4) = f(2 + 2) = 2 - 7 = -5$$

$$f(5) = f(3 + 2) = 2 \cdot 3 + 1 = 7$$

$$f(6) = f(4 + 2) = 2 \cdot 4 + 1 = 9$$

$$(-7) + (-5) + (7) + (9) = 4$$

Cevap: C

60. $\log_{\sqrt{3}}^9 = \log_{\frac{1}{3^2}}^3 = \frac{2}{3} \log_3^3 = 2 \cdot \frac{2}{3} \cdot 1 = 4$

$$\log_{\sqrt[3]{2}}^2 = \log_{\frac{1}{2^3}}^2 = \frac{1}{3} \log_2^2 = 1 \cdot \frac{3}{1} \cdot 1 = 3$$

$$\log_{21}^{21} = 1$$

$$\Rightarrow \log_{\sqrt{3}}^9 + \log_{\sqrt[3]{2}}^2 - \log_{21}^{21} = 4 + 3 - 1 = 6$$

Cevap: B

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61. $\log 25 = \log \frac{100}{4} = \log 100 - \log 4 = \log 10^2 - \log 2^2$
 $= 2 \log 10 - 2 \log 2 = 2 \cdot 1 - 2x = 2 - 2x$

Cevap: A

62. $|(-1 + i) - (3 - 2i)| = |-4 + 3i| = \sqrt{(-4)^2 + 3^2}$
 $= \sqrt{25} = 5$

Cevap: A

63. $\frac{22}{\sqrt{7} - 2i} + \frac{33}{\sqrt{7} + 2i} - \sqrt{7} + 2i$
 $(\sqrt{7} + 2i) \quad (\sqrt{7} - 2i)$

$$= \frac{22(\sqrt{7} + 2i)}{7 + 4} + \frac{33(\sqrt{7} - 2i)}{7 + 4} - \sqrt{7} + 2i$$

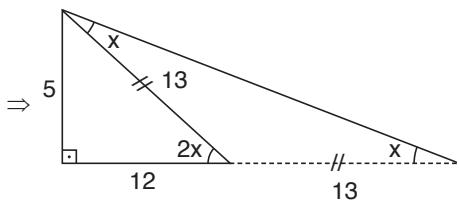
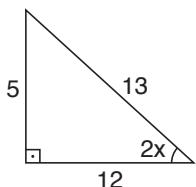
$$= 2 \cdot (\sqrt{7} + 2i) + 3 \cdot (\sqrt{7} - 2i) - \sqrt{7} + 2i$$

$$= 2\sqrt{7} + 4i + 3\sqrt{7} - 6i - \sqrt{7} + 2i$$

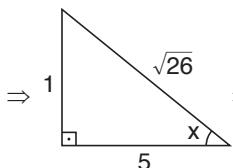
$$= 4\sqrt{7}$$

Cevap: C

64.



$$\Rightarrow \tan x = \frac{5}{12} = \frac{1}{5}$$



$$\Rightarrow \cos x = \frac{5}{\sqrt{26}} \Rightarrow \cos^2 x = \frac{25}{26}$$

Cevap: B

65.

$$\lim_{x \rightarrow \infty} \left(\frac{1}{x+1} + 5^{\frac{1}{x-2}} + \frac{2x+1}{x-2} \right) = ?$$

$$\lim_{x \rightarrow \infty} \left(\frac{1}{x+1} \right) = 0 \quad \lim_{x \rightarrow \infty} \left(5^{\frac{1}{x-2}} \right) = 5^0 = 1$$

$$\lim_{x \rightarrow \infty} \left(\frac{2x+1}{x-2} \right) = 2$$

$$\Rightarrow 0 + 1 + 2 = 3$$

Cevap: A

$$66. \lim_{x \rightarrow 0} \frac{\tan 3x + 5x}{\sin 2x} = \lim_{x \rightarrow 0} \left(\frac{\tan 3x}{\sin 2x} + \frac{5x}{\sin 2x} \right)$$

$$= \frac{3}{2} + \frac{5}{2} = \frac{8}{2} = 4$$

Cevap: E

67. $3.2 + a = 10 \Rightarrow a = 4$

$$a.2 - c = 10 \Rightarrow 4.2 - c = 10 \Rightarrow c = -2$$

Cevap: D

68. $f'(3x+1).3 = 8x+4 \Rightarrow x = 1$

$$f'(3.1+1).3 = 8.1+4$$

$$\Rightarrow f'(4).3 = 12 \Rightarrow f'(4) = 4$$

Cevap: B

69. $f(x) = 4\sin^3 x \cdot \cos x$

$$f\left(\frac{\pi}{3}\right) = 4 \cdot \sin^3\left(\frac{\pi}{3}\right) \cos\left(\frac{\pi}{3}\right) = 4 \cdot \left(\frac{\sqrt{3}}{2}\right)^3 \cdot \left(\frac{1}{2}\right) = \frac{3\sqrt{3}}{4}$$

Cevap: D

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70. $f(x) = \frac{1}{2\sqrt{2x^2 - 1}} \cdot 4x$

$$f'(5) = \frac{1}{2\sqrt{2.25 - 1}} \cdot 4.5 = \frac{20}{2 \cdot \sqrt{49}} = \frac{10}{7}$$

Cevap: C

$$71. \int_0^3 |2x - 2| dx = \int_0^1 |2x - 2| dx + \int_1^3 |2x - 2| dx$$

$$= \int_0^1 (-2x + 2) dx + \int_1^3 (2x - 2) dx$$

$$= (-x^2 + 2x) \Big|_0^1 + (x^2 - 2x) \Big|_1^3$$

$$= (-1 + 2) - (0 + 0) + (9 - 6) - (1 - 2)$$

$$= 1 + 0 + 3 + 1 = 5$$

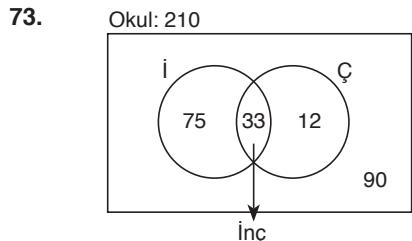
Cevap: E

72. $\sin x = u \quad \cos x dx = du, \quad \sin 0 = 0, \quad \sin \frac{\pi}{2} = 1$

$$\Rightarrow \int_0^{\frac{\pi}{2}} e^{\sin x} \cdot \cos x dx = \int_0^1 e^u \cdot du$$

$$= e^u \Big|_0^1 = e^1 - e^0 = e - 1$$

Cevap: A



Her iki derse katılmayan 90 öğrenci vardır.

Cevap: D

	<u>Cemre</u>	<u>Barış</u>
Bugün	x	x+3
3 yıl sonra	x+3	x+6

$$x + 3 + x + 6 = 69$$

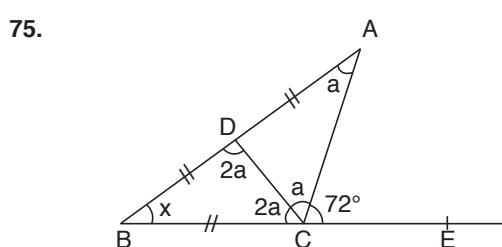
$$2x + 9 = 69$$

$$2x = 69 - 9$$

$$2x = 60$$

$$x = 30$$

Cevap: B



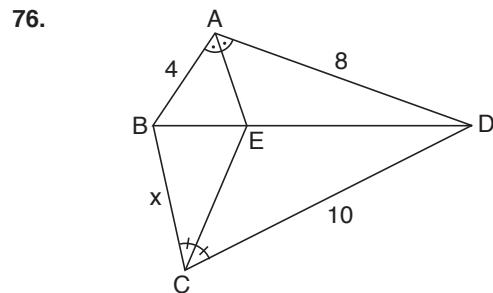
$$m(\widehat{CAD}) = a \Rightarrow m(\widehat{DCA}) = a \Rightarrow m(\widehat{BDC}) = 2a$$

$$m(\widehat{BCD}) = 2a$$

$$72 + 3a = 180 \Rightarrow 3a = 108 \Rightarrow a = 36^\circ$$

$$x + a = 72 \Rightarrow x + 36 = 72 \Rightarrow x = 36^\circ$$

Cevap: D



$$\frac{|ABI|}{|ADI|} = \frac{|BCI|}{|EDI|} \Rightarrow \frac{4}{8} = \frac{|BEI|}{|EDI|} \Rightarrow \frac{|BEI|}{|EDI|} = \frac{1}{2}$$

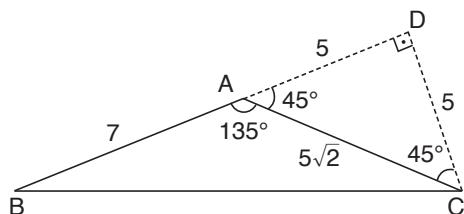
$$\frac{|BCI|}{|CD|} = \frac{|BEI|}{|EDI|} \Rightarrow \frac{x}{10} = \frac{1}{2} \Rightarrow 2x = 10$$

$$\Rightarrow x = 5$$

Cevap: C

TASARI AKADEMİ YAYINLARI

77.



$$IBDI \perp ICDI \quad m(CAD) = 45^\circ$$

$$\Rightarrow IADI = 5 \quad IDCI = 5$$

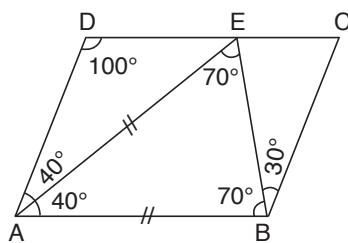
$$\Rightarrow IBCI^2 = IBDI^2 + IDCI^2$$

$$\Rightarrow IBCI^2 = 5^2 + 12^2 = 169$$

$$\Rightarrow IBCI = 13$$

Cevap: E

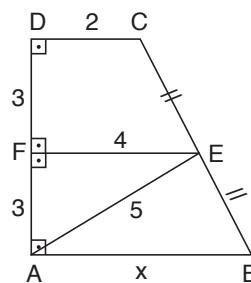
78.



$$\begin{aligned} \text{IDCI} // \text{IABI} &\Rightarrow m(\widehat{\text{DAB}}) = 180^\circ - 100^\circ = 80^\circ \\ &\Rightarrow m(\widehat{\text{DAE}}) = m(\widehat{\text{EAB}}) = 80:2 = 40^\circ \\ &\Rightarrow m(\widehat{\text{AEB}}) = m(\widehat{\text{ABE}}) = (180 - 40):2 = 70^\circ \\ &\Rightarrow m(\widehat{\text{CBE}}) = m(\widehat{\text{ABC}}) - m(\widehat{\text{ABE}}) \\ &\quad x = 100^\circ - 70^\circ = 30^\circ \end{aligned}$$

Cevap: B

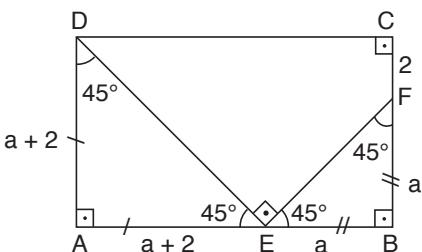
80.



$$\begin{aligned} \text{IFEI} // \text{IDCI} &\Rightarrow \text{IFEI} \perp \text{IADI} \\ \text{IECI} = \text{IEBI} &\Rightarrow \text{IFDI} = \text{IAFI} = 3 \\ |\text{IAFI}|^2 + |\text{IEFI}|^2 &= |\text{IAEI}|^2 \\ 3^2 + |\text{IEFI}|^2 &= 5^2 \Rightarrow |\text{IEFI}|^2 = 16 \Rightarrow |\text{IEFI}| = 4 \\ \text{IEFI} = \frac{\text{IDCI} + \text{IABI}}{2} &\Rightarrow 4 = \frac{2+x}{2} \Rightarrow x+2 = 8 \\ \Rightarrow x &= 6 \end{aligned}$$

Cevap: C

79.



$$\begin{aligned}
 AB // CD &\Rightarrow AB \perp CD \Rightarrow m(\widehat{B}) = 90^\circ \\
 m(\widehat{FEB}) &= 90^\circ + 45^\circ = 180^\circ \\
 \Rightarrow m(\widehat{FEB}) &= 45^\circ \\
 \Rightarrow m(\widehat{AED}) &= 45^\circ \Rightarrow m(\widehat{ADE}) = 45^\circ \\
 \Rightarrow IADI &= IACI, IEBI = IBFI = a, IADI = IBCI = a + 2 \\
 \Rightarrow IABI + IBCI &= 3a + 4 = 19 \Rightarrow 3a = 15 \Rightarrow a = 5 \\
 \Rightarrow IADI &= 7 = IAEI \Rightarrow IDEI = IADI \cdot \sqrt{2} = 7\sqrt{2}
 \end{aligned}$$

Cevap: E

131