موسسه متروپل سعادت آباد

سعادت آباد – بلوار دریا – روبروی خیابان صرافها – پلاک 54 – **واحد** 10

METROPOLSAADATABAD

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METROPOLSAADATABAD

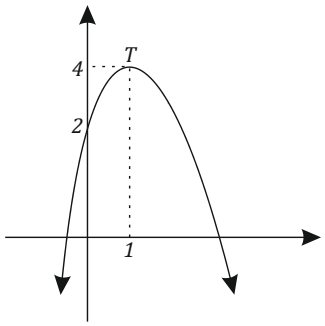
1.

$A = \dfrac{\sqrt[4]{5x-10} + x^2 + x + 2}{x - \sqrt{2-x} - 1}$, $A \in R$

$\Longrightarrow \dfrac{A}{x} = ?$

$A)2 \quad B)4 \quad C)6 \quad D)8 \quad E)10$

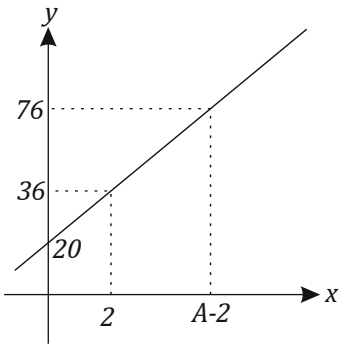
4.



$\Longrightarrow f(2) = ?$

$A)0 \quad B)-3 \quad C)2 \quad D)3 \quad E)-2$

13.



$A = ?$

$A)7 \quad B)8 \quad C)9 \quad D)10 \quad E)11$

14.

$x^3 + 2x^2 + 5x + R \;\big|\; x - 1$

$\underline{-\qquad\qquad\quad}$

10

$\Longrightarrow R = ?$

$A)-2 \quad B)0 \quad C)2 \quad D)4 \quad E)-4$

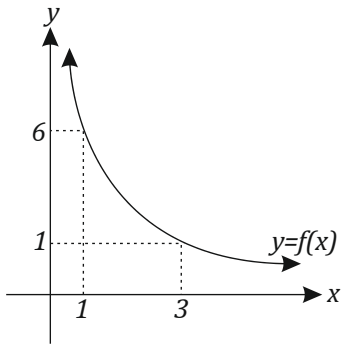
15.

$\begin{bmatrix} 4 & y \\ -1 & y+1 \end{bmatrix}\begin{bmatrix} 2 \\ x \end{bmatrix} = \begin{bmatrix} 1 \\ -2 \end{bmatrix}$

$\Longrightarrow y = ?$

$A)1 \quad B)2 \quad C)-3 \quad D)-2 \quad E)-1$

16.



$\int_1^3 f(x)\,dx = 12 \quad \Rightarrow \int_1^6 f^{-1}(x)\,dx = ?$

$A)14 \quad B)15 \quad C)16 \quad D)17 \quad E)18$

17.

$\left.\begin{array}{l} f(x) = ax^3 + 1 \\ g(x) = \sqrt{x} - 4 \\ (fog)(4) = -7 \end{array}\right| \Rightarrow \quad a = ?$

$A) -2 \quad B) -1 \quad C)0 \quad D)1 \quad E)2$

18.

$\left.\begin{array}{l} x * y = 2x + y \\ x \bullet y = \sqrt{x^2 + y^2} \end{array}\right\} \Rightarrow 2 * (12 \bullet 5) = ?$

$A)17 \quad B)19 \quad C)21 \quad D)23 \quad E)25$

19.

△	F	U	Y	O	S
F	Y	O	S	F	U
U	O	S	F	U	Y
Y	S	F	U	Y	O
O	F	U	Y	O	S
S	U	Y	O	S	F

$F \triangle U^{-1} = (S \triangle Y^{-1}) \triangle X$

$\Rightarrow X = ?$

$A)F \quad B)U \quad C)Y \quad D)O \quad E)S$

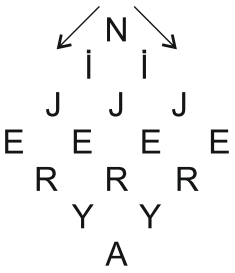
20.

2-4-6-8-0-2-4-6-8-0-2-4-6-8-0-…-?-

6. 1453.

$A)0 \quad B)2 \quad C)4 \quad D)6 \quad E)8$

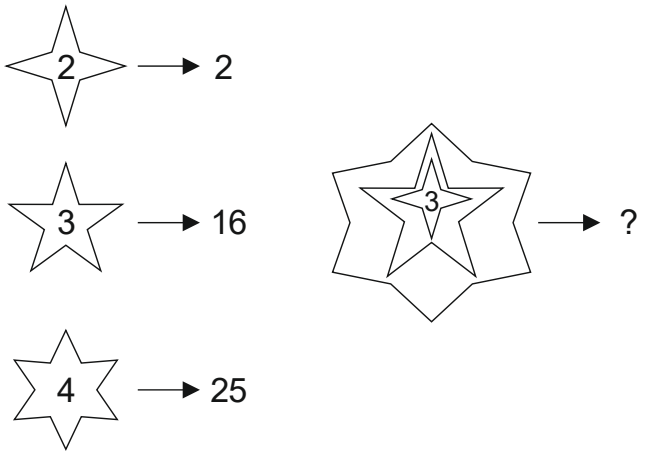
21.



Kaç farklı şekilde NİJERYA kelimesi okunur?

$A)6! \quad B)72 \quad C)20 \quad D)3!\,3! \quad E)\frac{6!}{3!}$

22.



$A)225 \quad B)400 \quad C)397 \quad D)400 \quad E)361$

23.

$$f:\begin{pmatrix} A & Z & E & R & B & a & Y & C & \forall & N \\ E & a & \forall & Y & C & B & Z & A & N & R \end{pmatrix}\Bigg\} \Rightarrow$$
$$g:\begin{pmatrix} A & Z & E & R & B & a & Y & C & \forall & N \\ \forall & B & C & N & A & Z & E & a & Y & R \end{pmatrix}\Bigg\}$$

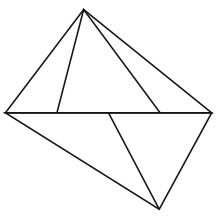
$$\Rightarrow fog = \begin{pmatrix} A & Z & E & R & B & a & Y & C & \forall & N \\ ? & ? & ? & ? & ? & ? & ? & ? & ? & ? \end{pmatrix}$$

$A)NCaREA\forall BZY \quad B)NCARE\forall aBZY$

$C)NCAREa\forall BYZ \quad D)NCAREaB\forall ZY$

$E)NCAREa\forall BZY$

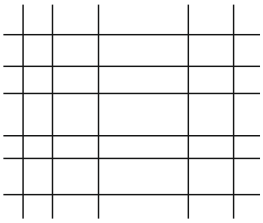
24.



Şekilde kaç üçgen vardır?

$A)9 \quad B)12 \quad C)5 \quad D)7 \quad E)11$

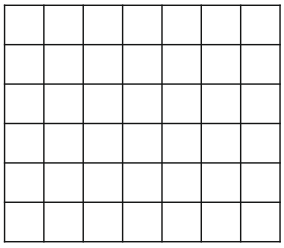
25.



Şekilde kaç dikdörtgen vardır?

$A)128 \quad B)140 \quad C)148 \quad D)160 \quad E)150$

26.



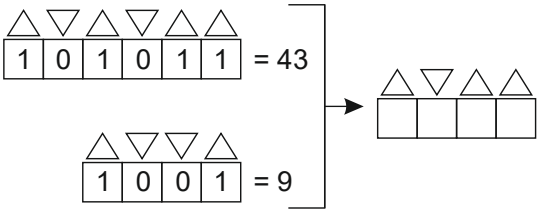
Şekilde 3x3 tipinde kaç kare vardır?

$A)15 \quad B)20 \quad C)12 \quad D)22 \quad E)10$

27.

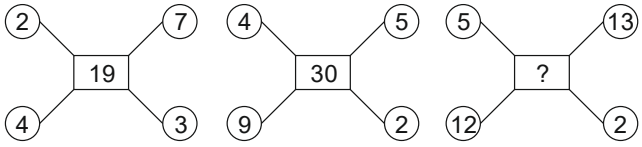
$A)1576 \quad B)7013 \quad C)6291 \quad D)4394 \quad E)6141$

28.



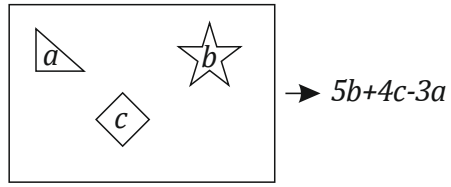
$A)15 \quad B)10 \quad C)8 \quad D)11 \quad E)9$

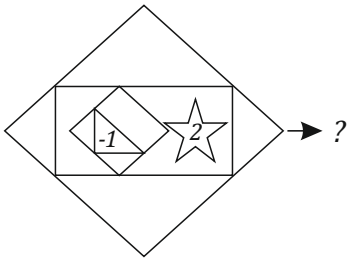
29.



$A)35 \quad B)22 \quad C)50 \quad D)60 \quad E)52$

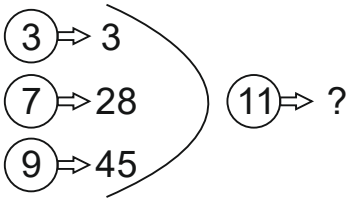
30.





$A)88 \quad B)49 \quad C)55 \quad D)-88 \quad E)-55$

31.



$A)81 \quad B)90 \quad C)45 \quad D)66 \quad E)55$

32.

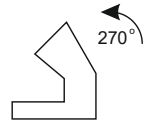
*	s	c
s		3
c		

$\Rightarrow s^3 + c^3 = ?$

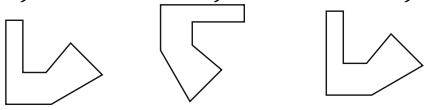
+	s	c
s		
c	5	

$A)120 \quad B)80 \quad C)115 \quad D)94 \quad E)85$

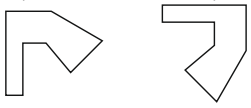
33.



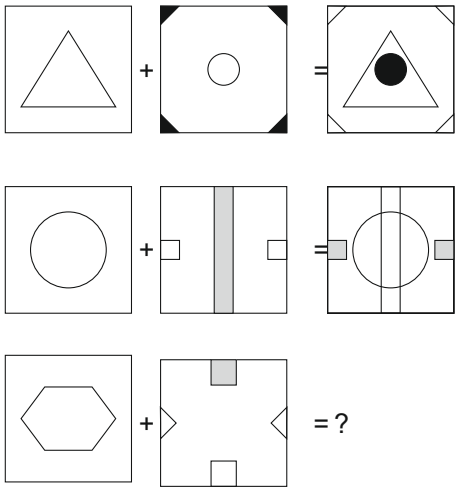
$A)$ $B)$ $C)$



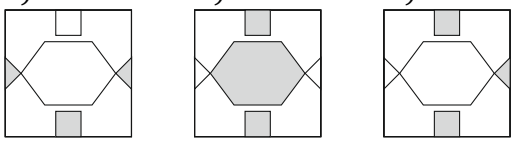
$D)$ $E)$



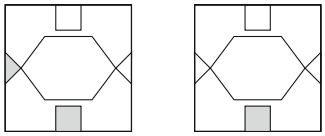
34.



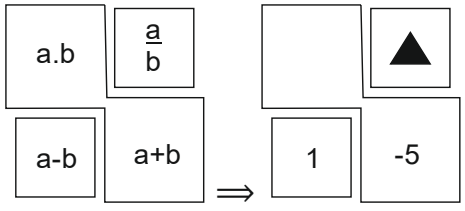
$A)$ $B)$ $C)$



$D)$ $E)$



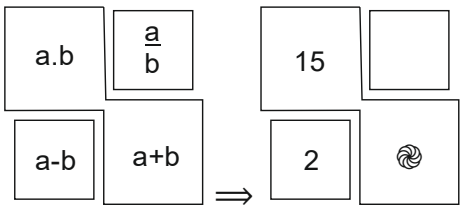
35.



▲ = ?

$A)2$ $B)3$ $C)-2$ $D)-\frac{2}{3}$ $E)\frac{2}{3}$

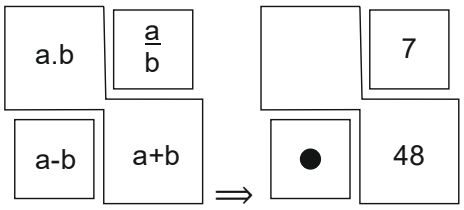
36.



= ?

$A)2$ $B)3$ $C)5$ $D)8$ $E)1$

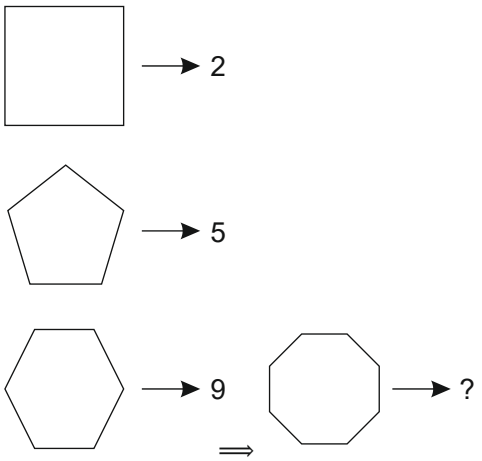
37.



● = ?

$A)6$ $B)42$ $C)7$ $D)8$ $E)36$

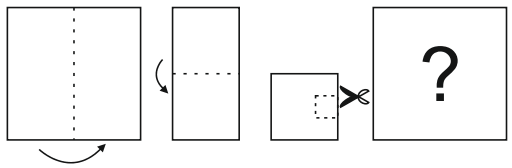
38.



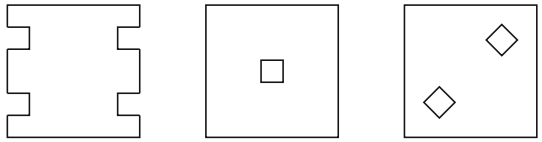
$A)12$ $B)15$ $C)20$ $D)27$ $E)32$

Ü

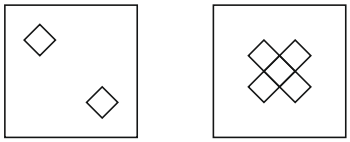
39.



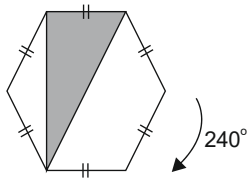
$A)$ $B)$ $C)$



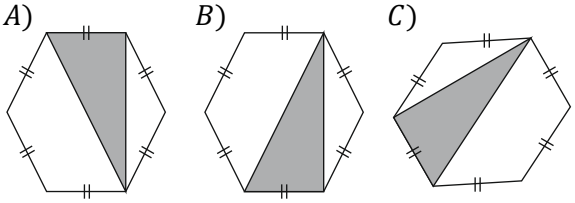
$D)$ $E)$



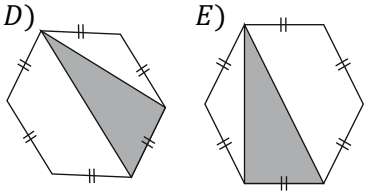
40.



$A)$ $B)$ $C)$



$D)$ $E)$

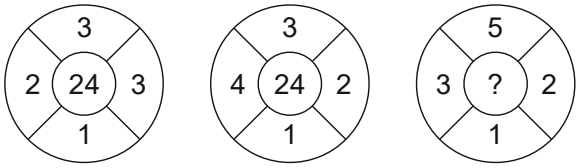


41.

$2 - 4 - 10 - 28 - \ ? \ - 244$

$A)56 \quad B)64 \quad C)82 \quad D)88 \quad E)92$

42.



$A)18 \quad B)24 \quad C)30 \quad D)35 \quad E)45$

43.

$31222 = 84$

$34322 = 127$

$35422 = 168$

$36321 = ?$

$A)39 \quad B)49 \quad C)59 \quad D)69 \quad E)81$

44.

$20 \triangle 3 = 8$

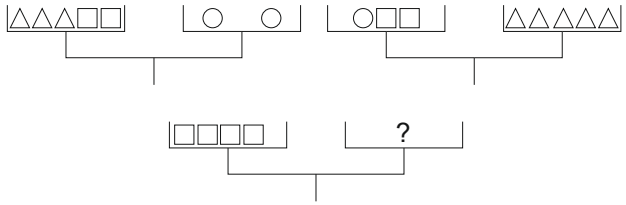
$36 \triangle 5 = 14$

$48 \triangle 7 = 19$

$60 \triangle 9 = ?$

$A)18 \quad B)24 \quad C)36 \quad D)42 \quad E)48$

45.



$A)\square\bigcirc\bigcirc$ $B)\bigcirc\bigcirc\bigcirc$ $C)\square\square\bigcirc$

$D)\square\bigcirc\bigcirc\bigcirc$ $E)\bigcirc\ \triangle$

46.

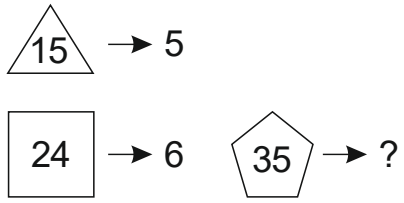
$$\left.\begin{matrix}MEVA\\ \text{Ö}MER\\ METE\\ \text{T}\text{Ö}RE\end{matrix}\right\}\begin{matrix}|+\boxplus+ & \boxtimes|+\boxdot\\ \boxplus\boxtimes\boxdot+ & |+\triangle\square\end{matrix}$$

$\text{Ö}VER = ?$

$A)\ \boxplus\triangle+\boxtimes$ $B)\ \boxtimes\triangle+\boxplus$ $C)\ \boxtimes+\triangle\boxdot$

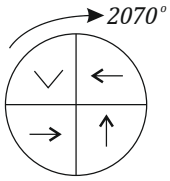
$D)\ \boxtimes\triangle+\boxdot$ $E)\ \boxdot+\triangle\boxtimes$

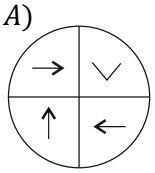
47.

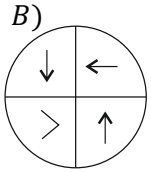


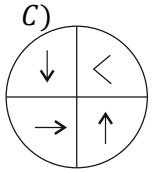
$A)7$ $B)9$ $C)10$ $D)15$ $E)20$

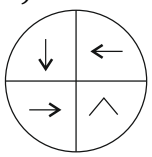
48.

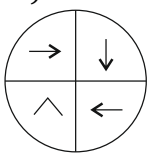


$A)$ 

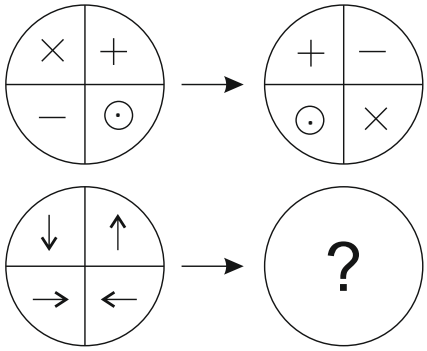
$B)$ 

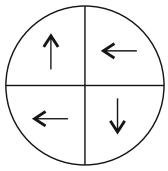
$C)$ 

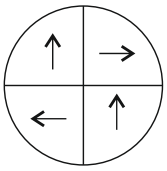
$D)$ 

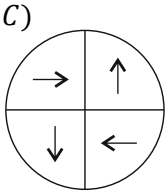
$E)$ 

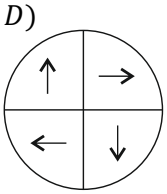
49.

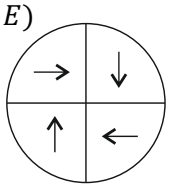


$A)$ 

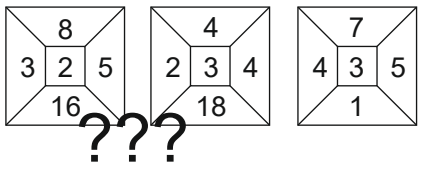
$B)$ 

$C)$ 

$D)$ 

$E)$ 

50.



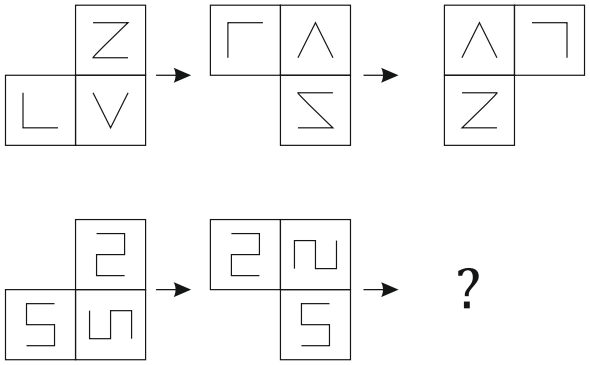
$A)18 \quad B)27 \quad C)36 \quad D)45 \quad E)54$

51.

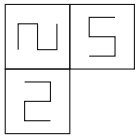
$$\left.\begin{array}{l} \square\square\square = 12 + \triangle\triangle \\ \triangle\triangle\triangle\triangle\triangle = 9 + \square \end{array}\right\} \Rightarrow \square \times \triangle = ?$$

$A)12 \quad B)16 \quad C)18 \quad D)20 \quad E)24$

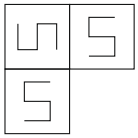
52.



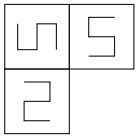
$A)$



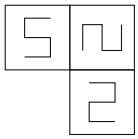
$B)$



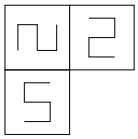
$C)$



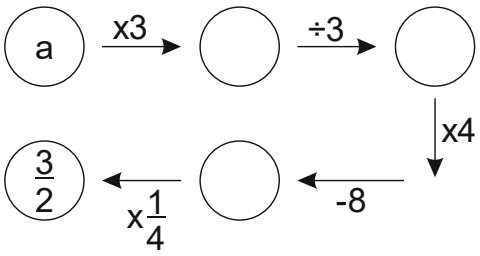
$D)$



$E)$



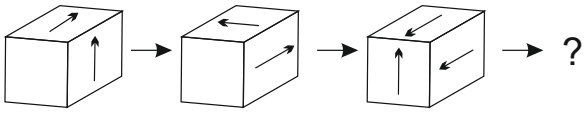
53.



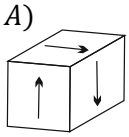
$a = ?$

$A)7 \quad B)\frac{7}{6} \quad C)\frac{7}{5} \quad D)\frac{7}{4} \quad E)\frac{7}{3}$

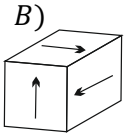
54.



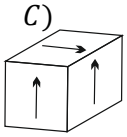
$A)$



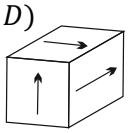
$B)$



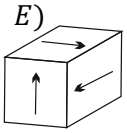
$C)$



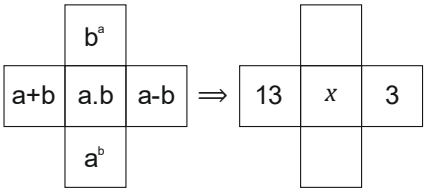
$D)$



$E)$



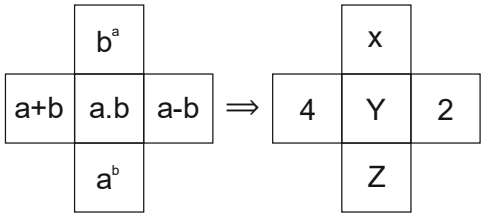
55.



$\Rightarrow x = ?$

$A)10 \quad B)15 \quad C)25 \quad D)35 \quad E)40$

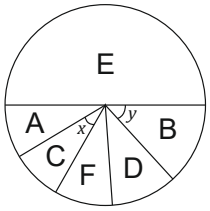
56.



$A)5 \quad B)6 \quad C)7 \quad D)8 \quad E)9$

57.

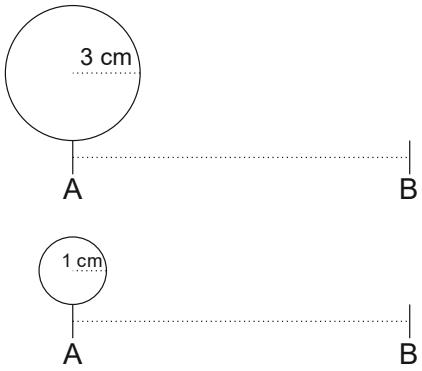
A	B	C	D	E	F
4	20	8	16	60	12



$x + y = ?$

$A)74 \quad B)78 \quad C)84 \quad D)86 \quad E)88$

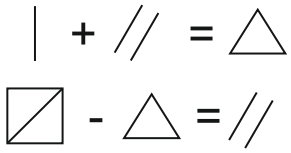
58.



A ve B noktaları arası 180 metredir. Büyük çemberin yarıçapı 3 cm, küçük çemberin yarıçapı 1 cm dir. İki çember A noktasından B noktasına yuvarlandığında küçük çember büyük çemberin kaç katı fazla tur atmış olur?

$A)1 \quad B)2 \quad C)3 \quad D)4 \quad E)5$

59.

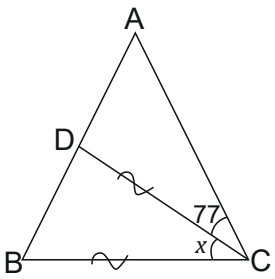


Yukarıdaki işlemler belirli bir mantık ile yazıldığına göre.

$[(| + \triangle) \div (\boxminus - |)] \times (\boxminus - \shortparallel) = ?$

$A)| \quad B)|| \quad C)\triangle \quad D)\square \quad E)\boxminus$

60.



$|AB| = |AC|$

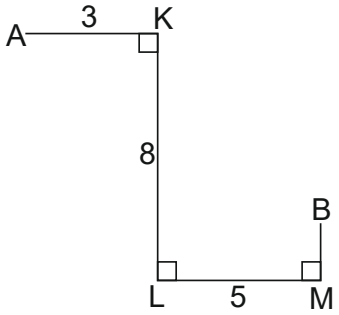
$|DC| = |BC|$

$m(ACD) = 27°$

$m(BCD) = x = ?$

$A)27 \quad B)28 \quad C)30 \quad D)32 \quad E)42$

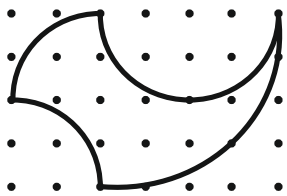
61.



Verilenlere göre A ve B noktaları arasındaki en kısa uzaklık kaç birimdir?

$A)8 \quad B)9 \quad C)10 \quad D)11 \quad E)13$

62.



birim karelere bölünmüş noktalı kağıt üzerine çizilen kapalı şeklin çevresi kaç birimdir?

$A)4\pi \quad B)6\pi \quad C)8\pi \quad D)10\pi \quad E)12\pi$

63.

$\frac{x}{y} = -\frac{1}{3} \Rightarrow \left(\frac{y}{x}\right)^{-4} = ?$

$A) -\frac{1}{81} \quad B) -\frac{1}{27} \quad C)\frac{1}{9} \quad D)\frac{1}{27} \quad E)\frac{1}{81}$

64.

$A = \{a, b, c, d, e, f, g\}$

Kümesinin alt kümelerinin kaç tanesinde a ve e eleman olarak bulunur, f bulunmaz?

$A)8 \quad B)16 \quad C)32 \quad D)64 \quad E)120$

65.

$\lim_{x \to -4} \frac{x^2 - 15x - 76}{x + 4} = ?$

$A) -23 \quad B) -19 \quad C) -15 \quad D)0 \quad E)23$

66.

$f(x) = \arctan x$

Fonksiyonunun türevi $g(x)$ fonksiyonu olduğuna göre $\int_0^1 g(x)\,dx = ?$

$A) -\infty \quad B) -\pi \quad C)\frac{\pi}{4} \quad D) -\frac{\pi}{4} \quad E)\infty$

67.

Karekökü 0,2 olan bir sayının küpü ile, küp kökü 0,01 olan bir sayının karekökünün oranı kaçtır?

$A)0{,}04 \quad B)0{,}008 \quad C)0{,}016 \quad D)0{,}64 \quad E)0{,}064$

68.

Çevresi a birim olan bir çemberin yarıçapı 4 katına çıkarılırsa, çevresi kaç a artar?

$A)5 \quad B)4 \quad C)3 \quad D)2 \quad E)1$

69.

Alanı 4π birim kare olan bir dairenin alanının 16π birim kare olması için yarıçapı kaç kat artırılmalıdır?

$A)1 \quad B)2 \quad C)3 \quad D)4 \quad E)5$

70.

$\log_a b^4 = 9 \implies \log_{a^3} b = ?$

$A)\frac{1}{4} \quad B)\frac{3}{4} \quad C)1 \quad D)\frac{4}{9} \quad E)2$

71.

$i^2 = -1,$

$Z = 3i^{37} + i^{35} - i^{12} \implies \mathrm{Z} = ?$

$A) -1 + 4i \quad B) -1 - 4i \quad C)1 - 4i$

$D) -1 + 2i \quad E) -1 - 2i$

72.

$(3x-1)^2 e^{5x} + (3y+2)^2 e^{3y} = 0 \implies x \cdot y = ?$

$A) -\frac{2}{9} \quad B) -\frac{1}{9} \quad C)0 \quad D)\frac{1}{9} \quad E)\frac{2}{9}$

73.

$(3x-4)^{x+4} = 1 \implies$

x in alabileceği değerler toplamı kaçtır?

$A) -\frac{11}{3} \quad B) -\frac{7}{3} \quad C) -\frac{4}{3} \quad D)\frac{1}{3} \quad E)\frac{4}{3}$

74.

$(5,\overline{9})^{-1} \cdot (2,\overline{3})^{-1} = ?$

$A)\frac{1}{7} \quad B)\frac{2}{7} \quad C)\frac{1}{14} \quad D)\frac{3}{14} \quad E)\frac{5}{14}$

75.

$\left(-\frac{1}{3}\right)^{-5} \cdot \left(-\frac{3}{2}\right)^{-4} = ?$

$A) -48 \quad B) -32 \quad C) -16 \quad D)16 \quad E)48$

76.

$\frac{3x+1}{7}$

Kesrinin bileşik olmasını sağlayan x tamsayılarının toplamı kaçtır?

$A) -3 \quad B) -2 \quad C)0 \quad D)2 \quad E)3$

77.

Ardışık 6 çift tamsayının en küçüğü ile en büyüğü arasındaki fark kaç olabilir?

$A) -12 \quad B) -10 \quad C)6 \quad D)8 \quad E)12$