

4

$$\frac{0,\overline{3}+0,3}{0,\overline{3}-0,3}=?$$

- a) 19 b) 17 c) 13 d) 11 e) 7

6

$$n!=1.2.3.4.....(n-1).n$$

$$\frac{5!-4!}{5!+4!}=?$$

- a) $\frac{1}{3}$ b) $\frac{2}{3}$ c) 1 d) $1\frac{1}{3}$ e) $1\frac{2}{3}$

5

$$m+n=5$$

$$e - o=2$$

$$m.e - m.o + n.e - n.o=?$$

- a) 5 b) 10 c) 15 d) 20 e) 25

HESARI ACADEMY

13

$$2^x = a$$

$$3^x = b$$

$$48^x = ?$$

- a) ab b) a^2b c) a^3b^2 d) a^4b e) ab^3

15

$$\left. \begin{array}{l} 2^a = 81 \\ 3^b = 32 \end{array} \right\} a.b = ?$$

- a) 20 b) 18 c) 16 d) 14 e) 12

14 f , karmaşık sayılar kümesinde tanımlı bir fonsiyon olmak üzere,

$$f(z) = \sum_{k=1}^{101} z^{k-1} \quad \text{ise} \quad f(i) = ?$$

If a function on a set of complex numbers,

$$\text{If } f(z) = \sum_{k=1}^{101} z^{k-1} \rightarrow f(i) = ?$$

- a) 1 b) i c) $-i$ d) -1 e) $i+1$

25

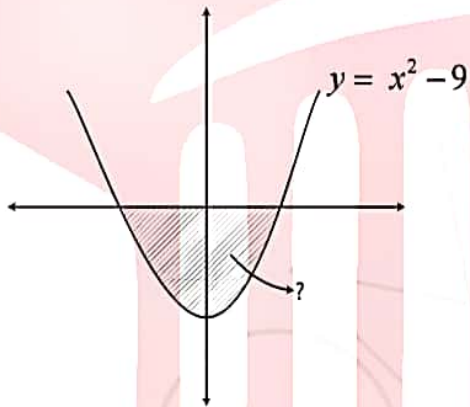
$$\int_0^3 x^2 - 2x + 5 = ?$$

- a) 12 b) 13 c) 14 d) 15 e) 16

27

$$\int \frac{1}{x+2} + \frac{1}{x+3} dx = ?$$

- a) $\ln|x^2 + 5x + 6| + c$
 b) $\ln|x^2 + 2x + 3| + c$
 c) $\frac{1}{6} \ln|x^2 + 5x| + c$
 d) $x^2 + 6x + c$
 e) $\frac{x+2}{x+3}$

26

- a) 24 b) 36 c) 48 d) 60 e) 72

HESARI ACADEMY

28

$$\log_a (a.b) = 3 \rightarrow \log_{a.b} b = ?$$

- a) $\frac{1}{3}$ b) $\frac{2}{3}$ c) 1 d) $\frac{3}{2}$ e) $\frac{5}{3}$

30

$$y = (2x+5)^3$$

$$\frac{d^3 y}{dx^3} = ?$$

- a) $2x+5$ b) $4x+10$ c) 0 d) 24 e) 48

29

$$f(x) = (2x-3)^3 + 4\sqrt{x} - 3$$

$$f'(4) = ?$$

- a) 73 b) 74 c) 149 d) 150 e) 151

HESARI ACADEMY



50

	1278	3127	3951
		5921	8727
	$\square \star \blacktriangle \bigcirc = ?$		

- a) 1278 b) 3127 c) 3951 d) 5921 e) 8727

52

a) b) c) d) e)

51

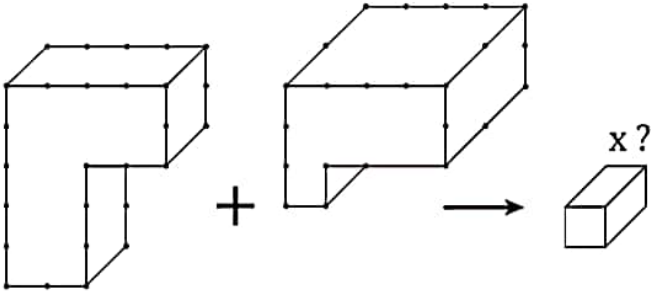
- a) b) c) d) e)

53

DOR	EMİ	?	OLL	ASİ
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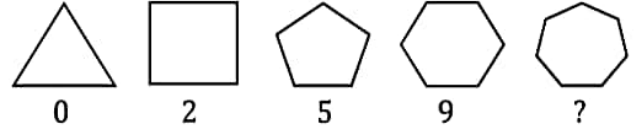
- a) SFA b) FAS c) SAF d) AFS e) FSA

69



- a) 21 b) 23 c) 25 d) 27 e) 29

71



- a) 14 b) 15 c) 16 d) 17 e) 18

70

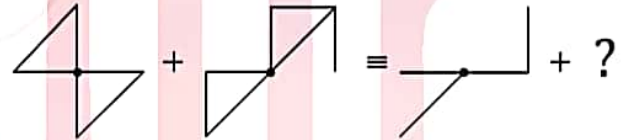
■	5	7	6
4		A	
3		59	
5	B		62

Yukarıdaki tabloda ■ işleminin kuralı verilmiştir. Buna göre $A+B$ kaçtır?

According to rule ■ operation established in the table above, what is the value of $A+B$ = ?

- a) A b) B c) C d) D e) E

72



- a) b) c) d) e)

77

- I. $5 \square 3 = 19$
 II. $8 \square 2 = 22$
 III. $10 \square 5 = 35$
 IV. $12 \square 7 = ?$

a) 30 b) 35 c) 40 d) 45 e) 50

79

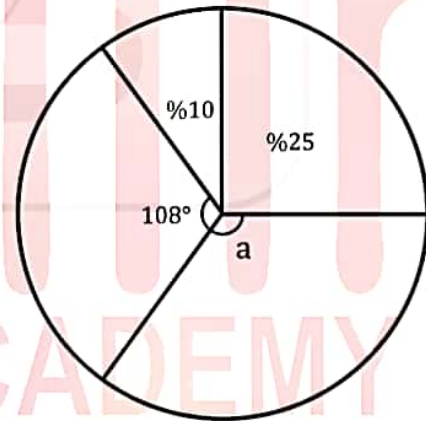
- I. $345 \rightarrow 35$
 II. $822 \rightarrow 20$
 III. $434 \rightarrow 28$
 IV. $543 \rightarrow ?$

a) 25 b) 27 c) 29 d) 31 e) 33

78

- I. $a \otimes b = \begin{cases} a^2 - b^2, & a \leq b \\ 2ab + 2, & a > b \end{cases}$
 II. $(-1) \otimes (2 \otimes 1) = ?$

a) 27 b) 20 c) -9 d) -25 e) -35

80

a) 126 b) 136 c) 144 d) 152 e) 162