



YÖS ANKARA  
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IV TEKRAR TESTİ

Matematik 42

1.  $f(x) = \begin{cases} x+3, & x \equiv 1 \pmod{2} \\ 3x+1, & x \equiv 0 \pmod{2} \end{cases}$

$\Rightarrow (f \circ f)(2) + f(3) = ?$

- A) 13 B) 16 C) 18 D) 22 E) 25

4.  $\frac{7x+5}{x^2-2x-15} = \frac{a}{x+3} + \frac{b}{x-5}$

$\Rightarrow a \cdot b = ?$

- A) 3 B) 6 C) 8 D) 10 E) 15

2.  $f(x) = \frac{x}{x-1} \Rightarrow f(2x) = ?$

A)  $\frac{2f(x)}{f(x)-2}$  B)  $\frac{2f(x)}{f(x)-1}$  C)  $\frac{2f(x)}{2f(x)-1}$

D)  $\frac{2f(x)}{f(x)+1}$  E)  $\frac{2f(x)}{2f(x)+1}$

5.  $P(x) = 2x^5 - 5x^4 + 4x^3 + ax^2 + b$

$Q(x) = (x-1)^2$

$\begin{array}{r} P(x) \mid Q(x) \\ \underline{\phantom{0}} \\ B(x) \\ \underline{\phantom{0}} \\ 0 \end{array}$

$\Rightarrow a - b = ?$

- A) -2 B) -1 C) 0 D) 1 E) 2

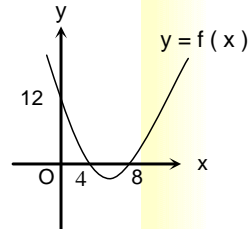
3.  $f(x-2) = 2x+3$

$g(x) = x+2$

$\Rightarrow (f \circ g^{-1})(5) = ?$

- A) 8 B) 10 C) 12 D) 13 E) 15

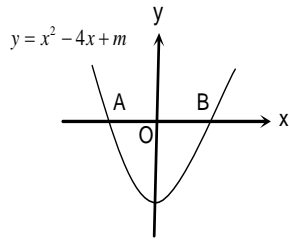
6.



$\Rightarrow f(2) = ?$

- A)  $\frac{9}{2}$  B) 4 C)  $\frac{7}{2}$  D) 3 E) 2

7.



$$|OB| = 5|OA|$$

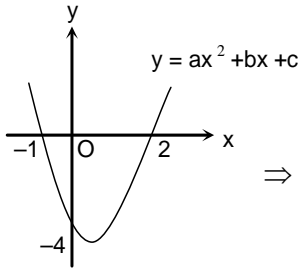
$$\Rightarrow m = ?$$

- A) -5 B) -3 C) -1 D) 1 E) 5

$$10. \left. \begin{aligned} x^2 - 3x - 4 < 0 \\ x^2 - 8x + 15 < 0 \end{aligned} \right\} \Rightarrow \zeta K(SS) = ?$$

- A)  $(-1, 3) \cup (4, 5)$  B)  $(3, 4)$  C)  $(-1, 5)$   
D)  $(3, 5)$  E)  $(-1, 4)$

8.



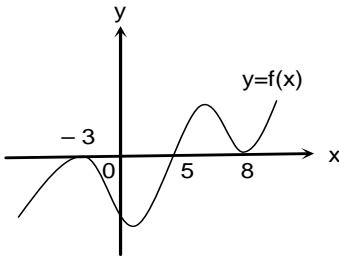
$$\Rightarrow a + b + c = ?$$

- A) -4 B) -2 C) 0 D) 2 E) 4

$$11. \frac{x}{x-3} \leq \frac{1}{x} \Rightarrow \zeta K(SS) = ?$$

- A)  $[0, 3]$  B)  $(-\infty, 0) \cup (3, 8)$  C)  $[3, \infty)$   
D)  $[0, 3)$  E)  $(0, 3)$

9.



$$(x^2 + 1) \cdot f(x) \leq 0$$

$$x \in \mathbb{N}^+ \Rightarrow \sum x = ?$$

- A) 15 B) 17 C) 19 D) 21 E) 23

$$12. \frac{(x-2)^2(x^2+x-6)}{x^2-9} \leq 0 \Rightarrow \zeta K(SS) = ?$$

- A)  $(-\infty, -3)$  B)  $(-3, 2)$  C)  $[2, 3)$   
D)  $(2, 3]$  E)  $[3, +\infty)$

$$13. \frac{x+1}{x+4} \leq \frac{1}{x} \Rightarrow \zeta K(SS) = ?$$

- A)  $[0, 4]$  B)  $[2, 4]$  C)  $[0, 2]$   
D)  $(0, 4]$  E)  $(-4, -2] \cup (0, 2]$

1	2	3	4	5	6	7	8	9	10	11	12	13
B	D	D	D	B	A	A	A	E	B	E	C	E