

1- $\frac{1}{x^{a-b}-1} + \frac{1}{x^{b-a}-1} = ?$
 a) x^{a-b} b) x^{b-a} c) -1 d) 1 e) 0

2-

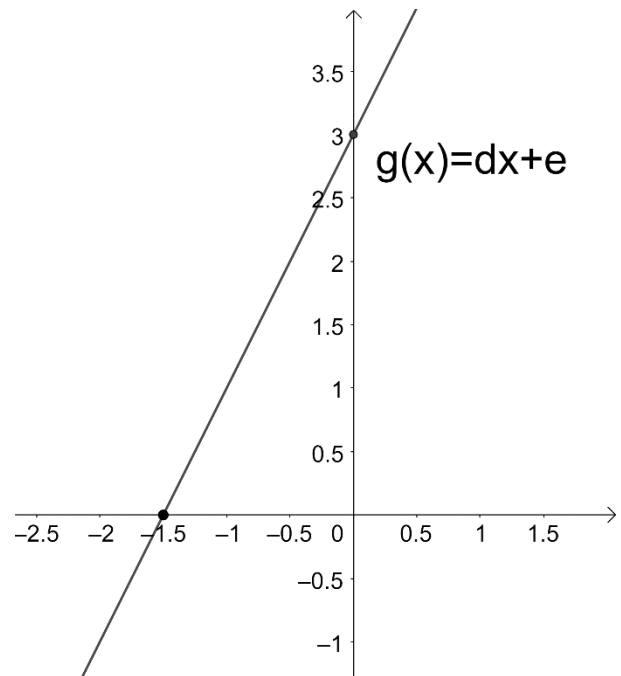
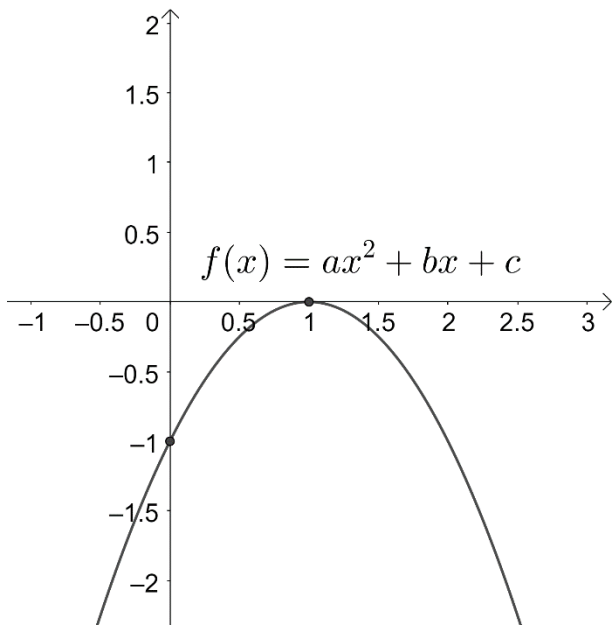
$$\sqrt{3x-2\sqrt{x}} + \sqrt{3x+2\sqrt{x}} = 4 \Rightarrow x = ?$$

a) $\frac{9}{4}$ b) $-\frac{9}{4}$ c) 1 d) $\frac{11}{16}$ e) $\frac{16}{11}$

3- $-2 < x < 1$ ise $|2-x| + |3-|1-x|| = ?$

A)-3 B)-4 C)3 D)4 E)2

4-



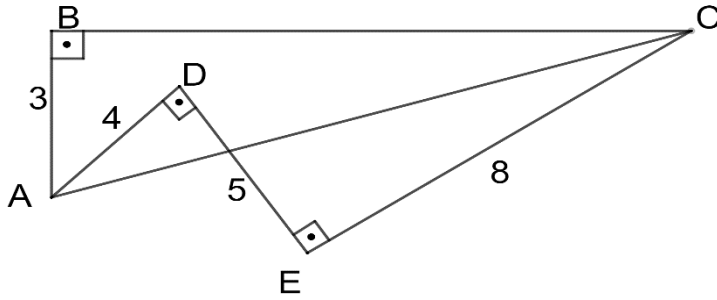
$$\Rightarrow f(g(x)) = ?$$

a) $-4(x+1)^2$ b) $-2(x-1)^2 + 3$ c) x^2 d) 1 e) $\frac{1}{(x-1)^2}$

5- $z \in \mathbb{C}, z + 2\bar{z} = |z+2| \Rightarrow z = ?$

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

6-



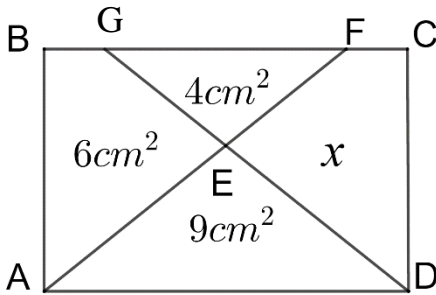
$|AB| = 3br, |AD| = 4br,$

$|DE| = 5br, |EC| = 8br$

$\Rightarrow |BC| = ?$

- a) $8\sqrt{5}$ b) 12 c) $4\sqrt{10}$ d) 13 e) 15

7-

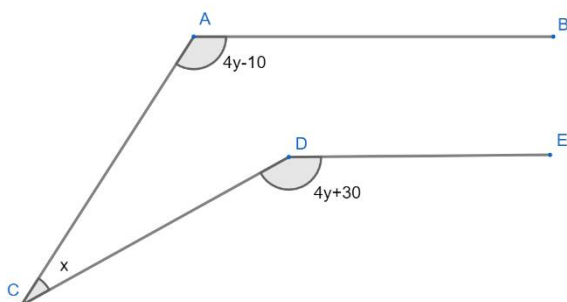


$ABCD$ bir dikdörtgen ise $EFCD$ bölgesinin alanı nedir?

If $ABCD$ is a rectangular then what is the area of the region $EFCD$?

8-
$$\left. \begin{array}{l} x - 2y = -3 \\ 2x + y = 4 \end{array} \right\} \Rightarrow \frac{\left(1 + \frac{1}{x}\right)\left(1 - \frac{1}{y}\right)}{\left(2 - \frac{1}{x}\right)\left(2 + \frac{1}{y}\right)} = ?$$

9-



$[AB] // [DE], m(\hat{BAC}) = 4y - 10,$

$m(\hat{EDC}) = 4y + 30.$

$$m(\hat{A}CD) = x = ?$$

$$3^{x+2y} = 81$$

$$10- 2^{3x-5y} = 32$$

$$\frac{x}{y} = ?$$

- A) $\frac{25}{7}$ B) $\frac{26}{7}$ C) $\frac{27}{7}$ D) $\frac{28}{7}$ E) $\frac{30}{7}$

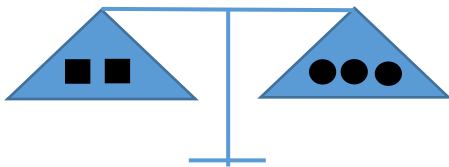
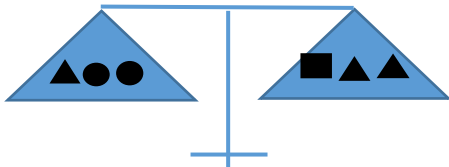
$$11- \frac{\left(5 - \frac{1}{3}\right) : \frac{1}{2}}{\left(4 - \frac{4}{3}\right) : \frac{2}{3}} = ?$$

- A) $\frac{2}{3}$ B) $\frac{4}{3}$ C) $\frac{5}{3}$ D) $\frac{7}{3}$ E) 3

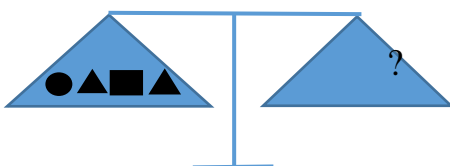
12-

$$\log_9 4x^2 - \log_3 (x-1) = 2 \Rightarrow x = ?$$

13-



\Rightarrow



- a) ● ● ▲ ▲ ●
 b) ● ■ ■ ▲
 c) ● ● ▲ ▲
 d) ● ■ ▲ ●
 e) ● ▲ ● ▲ ▲

14- $\lim_{x \rightarrow -3} \frac{2x^2 + 11x + 15}{5x^2 + 17x + 6} = ?$

- a) $\frac{2}{13}$ b) 0 c) $\frac{1}{13}$ d) $\frac{-1}{13}$ e) $\frac{2}{5}$

15-

$f(x) = ax^2 + bx + c, \int_0^1 f'(x) dx = 5 \Rightarrow a + b = ?$

- A) 10 B) 5 C) 0 D) -1 E) -2