Example : $\frac{x-1}{3} = 4$, what is the value of x?

A) 7/3
B) 11
C) 13
D) 15

1

$\frac{x+2}{4} = 3$, what is the value of x?

A) 4
B) 10
C) 14
D) 20

2

$\frac{12-x}{3} = k$ and $k = 2$, what is the value of x?

A) 4
B) 6
C) 8
D) 10

3

$5x + 8 = 12$, what is the value of $15x + 5$?

A) 15
B) 17
C) 20
D) 65

4

$4r = 18$ what is the value of $12r - 3$?

A) 45
B) 69
C) 75
D) 105

5

$\frac{t+3}{t-2} = 4$ what is the value of t?

A) $\frac{-11}{3}$
B) $\frac{-5}{3}$
C) $\frac{5}{3}$
D) $\frac{11}{3}$

6

$\frac{8}{x} = \frac{12}{x-5}$, what is the value of x?

A) -10
B) -8
C) -6
D) -2

Example : $17 - 2k^2 = x + 1, k > 0, x = -2$, what is the value of k?

A) 2
B) 3
C) 4
D) 5

1

$\frac{5x-k}{x+3} = 3$, if $x = 2$, what is the value of k?

A) -5
B) -2
C) 2
D) 5

2

$\sqrt{3k^2 - 2} = x + 3$, if $k > 0$ and $x = 2$, what is the value of k?

A) 2
B) 3
C) 4
D) 5

3

$\frac{1}{2}(2x + k) = \frac{21}{2}$, k is constant and $x = 8$, what is the value of k?

A) 4
B) 5
C) 6
D) 7

4

$7(p - m) - 2(p + 2) = 5(p + m)$ m is constant, $p = 1983$, what is the value of m?

A) $\frac{-1}{3}$
B) $\frac{-1}{6}$
C) $\frac{1}{6}$
D) $\frac{1}{3}$

5

$(kx - 2)(kx + 2) = 21$, if $k > 0$ and $x = 3$, what is the value of k?

6

$kx^2 - 4x = k + x - 4$, k is constant and $x = -2$, what is the value of k?

OĞUZ ARAS

Example : $4x - 2 = ax - 1$ has no solution. What is the value of a?

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

1

$\frac{2x-1}{3} = \frac{x-a}{b}$ is true for all real numbers. What is the value of $a + b$?

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

2

$(2 + a)x + 3x - 7 + b = 0$ has infinitely solution. What is the value of $a + b$?

   E) -5
   F) 2
   G) 5
   H) 7

3

$\frac{2x}{x-2} + x = 4 + \frac{4}{x-2}$ what is the value of x that satisfies the equation?

   A) 2
   B) 4
   C) all real numbers
   D) there is no such value

4

$3(x - 1) + mx + 5 = 4x + n - 1$ is true for all real numbers. What is the value of m+n?

   A) 1
   B) 2
   C) 3
   D) 4

5

$\frac{3x-9}{x-3} = 3$ what is the solution set of equation for x?

   A) -1
   B) 3
   C) R
   D) R-{3}

6

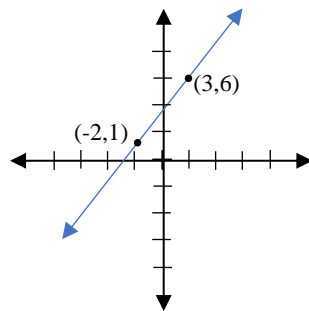$3(x - 5) + 6(x + 1) = 9(x - 1)$ what is the solution set of equation for x?

   A) -1
   B) 5
   C) R
   D) R-{5}

OĞUZ ARAS

Example : In the xy-plane the line determined by the points (k,16) and (1,k) passes through origin. Which of the following could be the value of k?
- A) 0
- B) 2
- C) 4
- D) 8

1

Line t shown in the xy-plane below. What is the slope of the line t? (-2,1)&(3,6))

(3,6)

(-2,1)

- A) -5
- B) 2
- C) 5
- D) 7

2

The graph of a line in the xy-plane passes through point (1,6) and cuts the x-axis at point (-1,0). The line cuts y-axis at the point (0,b). What is the value of b?

- A) -3
- B) -1
- C) 1/3
- D) 3

3

In the xy-plane which of the given equations have the graph with slope 5?
- A) $y = \frac{1}{5}x$
- B) $15x = 5y$
- C) $y = x - 5$
- D) $y = 5x + 3$

4

The line l in the xy-plane contains points from each of the quadrant I and quadrant III only. Which of the followings must be true?
- A) The slope of the line is undefined
- B) The slope of the line is zero
- C) The slope of the line is positive
- D) The slope of the line is negative

5

The graph of the line has the points (b,0) and (0,b) in the xy plane. If the equation of the line is $2ax - 8 = y$. what is the value of a?

6

Slope of the line $2x - 3y + 8 = 0$ is equal to slope of the line passing through (8,8) and (-2,k). What is the value of k?

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