$$\frac{x}{2} = \frac{5}{4}$$

$4x = 2(5)$

$4x = 10$

$x = \frac{10}{4}$

$$\frac{x}{2} = \frac{5}{4}$$

$x = \frac{2 \cdot 5}{4}$

$x = \frac{10}{4}$

1

If $\frac{1}{x-y} = \frac{3}{5y}$, which of the following proportions is equivalent?

A. $\frac{x}{y} = \frac{3}{8}$

B. $\frac{x}{y} = \frac{8}{3}$

C. $\frac{x}{y} = \frac{8}{15}$

D. $\frac{x}{y} = \frac{15}{8}$

2

If $2x - 3 = 0$, what is the value of $\frac{7}{3}x + \frac{1}{2}$?

3

If $\frac{2a}{3b} = \frac{1}{5}$, what is the value of $\frac{b}{a}$?

4

If $\frac{7}{x+2} = 0.5$, what is the value of x?

A) 1.5

B) 3

C) 12

D) 16

1

$$\frac{3y-2(4-2y)}{3} = \frac{-11+3(2+3y)}{5}$$

What is the value of y in the equation above?

shift Solve

3.125

2

If $\frac{2}{5}$ of $10x$ is 6 more than x, what is the value of x ?

A) 2

B) 3

C) 4

D) 6

$\frac{2}{5} \times 10x = 6 + x$

shift Solve

3

If $\frac{2x-4}{4} - \frac{x+1}{6} = t + 1$ and $t = 3$, what is the value of x?

A. 27

B. -1

C. 11

D. $\frac{31}{2}$

$\frac{2x-4}{4} - \frac{x+1}{6} = 3 + 1$

shift Solve

15.5

$\sqrt{\quad}$ = +ve or zero

-ve

$\sqrt{\quad} = -5$

$\sqrt{x+6} = x$

without solving

a) -1

b) -2

c) -3

d) 3

$\sqrt{x+1} = 5^2$

a) 4

b) 6

c) 24

d) 26

$x+1 = 25$

$x = 25-1$

$x = 24$

$\sqrt{\quad} = -\text{ve}$

$\sqrt{25} = 5$

$-\sqrt{25} = -5$

$x^2 = 25$

$x = \pm 5$

1

$$3x - 1 = \sqrt{3k^2 - x}$$

If $k > 0$ and $x = 2$ in the equation above, what is the value of k?

(Grid in)

2

$$\sqrt{x - 7} = 7$$

What value of x satisfies the given equation?

A) 0

B) 14

C) 42

D) 56

3

$$\sqrt{k + 2} - x = 0$$

In the equation above, k is a constant. If $x = 9$, what is the value of k ?

A) 1

B) 7

C) 16

D) 79

1

The solution set of the equation $\sqrt{2x+1} - x = -1$ is:

A. $\{0, 1, 4\}$

B. $\{1, 4\}$

C. $\{4\}$

D. $\{0\}$

2

$$x - 2 = \sqrt{x + 10}$$

Which of the following values of x is a solution to the equation above?

A) -1

B) 1

C) 4

D) 6

3

Which of the following is a solution to the equation $\sqrt{14 - x} + 2 = x$?

I. -2

II. 1

III. 5

A. I only

B. II only

C. III only

D. I and III

$2x + 1 \geq 5$

$2x \geq 4$

$x \geq \frac{4}{2}$

$x \geq 2$

$2x + 1 = 5$

$2x = 4$

$x = \frac{4}{2}$

$x = 2$

$3 \leq 2x - 1 < 9$

$3 + 1 \leq 2x < 9 + 1$

$\frac{4}{2} \leq x < \frac{10}{2}$

$2 \leq x < 5$

$1 - x < 9$

$-x < 9 - 1$

$-1x < 8$

$x > \frac{8}{-1}$

× ÷ -ve → change