

Solving 2-Step Equations

1 Solve for x

$$\begin{aligned} 2x + 5 &= 17 \\ -5 \quad -5 \\ \hline 2x &= 12 \\ \hline x &= 6 \end{aligned}$$

$$x = 6$$

2 Solve for x

$$\begin{aligned} \frac{x}{3} - 6 &= 4 \\ +6 \quad +6 \\ \hline (3)\frac{x}{3} &= 10(3) \end{aligned}$$

$$x = 30$$

3 Solve for x

$$\begin{aligned} 20 &= 8 + 4x \\ -8 \quad -8 \\ \hline 12 &= 4x \\ \hline 3 &= x \end{aligned}$$

$$3 = x \quad \text{or} \quad x = 3$$

4 Solve for x

$$\begin{aligned} 2(x + 9) &= 24 \\ \hline x + 9 &= 12 \\ -9 \quad -9 \\ \hline x &= 3 \end{aligned}$$

$$x = 3$$

5 Solve for x

$$\begin{aligned} 15 &= 3(x - 6) \\ \hline 5 &= x - 6 \\ +6 \quad +6 \\ \hline 11 &= x \end{aligned}$$

$$11 = x \quad \text{or} \quad x = 11$$

6 Solve for x

$$\begin{aligned} (5)\frac{x + 3}{5} &= 4(5) \\ x + 3 &= 20 \\ -3 \quad -3 \\ \hline x &= 17 \end{aligned}$$

$$x = 17$$

7 Solve for x

$$\begin{aligned} 5 &= 9 - 2x \\ +2x \quad +2x \\ \hline 2x + 5 &= 9 \\ -5 \quad -5 \\ \hline 2x &= 4 \end{aligned}$$

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

8 Solve for x

$$(\cancel{x-2})\frac{28}{\cancel{x-2}} = 4(x-2)$$

$$\frac{28}{4} = \frac{4(x-2)}{4}$$

$$7 = x - 2 \quad x = 9$$