

3-1 Solving Two-Step Equations

A **solution of an equation** is _____

In order to solve equations our goal is to _____

To do this we use Properties of Equality

$x - 6 = 2$	$-1 + x = 5$

$10 = x + 4$	$x + 5 = -2$

$7x = 21$	$-8x = 48$

$\frac{x}{5} = 2$	$\frac{x}{3} = -6$

Some tougher ones...

1. $\frac{x}{-4} = 5$

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

3. $\frac{-x}{4} = 5$

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

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

6. $\frac{2}{5x} = 2$

$$8x - 3 = 6x + 9$$

Some Observations:

$$\begin{array}{r} -6x \quad -6x \\ \hline \end{array}$$

➤

$$2x - 3 = 0 + 9$$

$$2x - 3 = 9$$

➤

$$\begin{array}{r} +3 \quad +3 \\ \hline \end{array}$$

$$2x - 0 = 12$$

➤

$$2x = 12$$

➤

Let's Try a Few Two Step Equations!

$$3x + 6 = 18$$

$$-10 = -6 + 2c$$

$$-r - 3 = 5$$

$$\frac{m}{3} + 5 = 20$$

$$9 - \frac{g}{5} = 19$$

$$\frac{3h}{4} - 2 = 4$$

Solve each equation. Check your answer on your calculator.

1. $2n - 5 = 7$

2. $8 = -3x - 1$

3. $8 + \frac{c}{-4} = -6$

4. $\frac{-y}{2} + 14 = -1$

5. $9 = -x + 8$

6. $0.4x + 9.2 = 10$