

# Solving One- and Two-Step Equations



When solving equations, the goal is to get the variable on one side of the equal sign by itself. The number on the other side will be the value of the variable.

$$8b + 5 = 29$$

First, identify any expressions that are separate from the variable that are being added or subtracted (like +5 in the first step of the equation below). To “move” it to the other side, perform the opposite operation (subtract 5) on BOTH sides.

$$\begin{array}{r} 8b + 5 = 29 \\ - 5 \quad - 5 \end{array}$$

Next, identify any expressions that are being multiplied or divided (like 8b in the second equation below). To “move” it to the other side, perform the opposite operation (divide it by 8) on BOTH sides.

$$\begin{array}{r} \frac{8b}{8} = \frac{24}{8} \\ \boxed{x = 3} \end{array}$$

**ANSWERS**

This process will allow you to solve the one and two step equations below.

1)  $2x + 10 = 24$

$$x = 7$$

2)  $3y + 8 = 14$

$$y = 2$$

3)  $3m - 2 = 58$

$$m = 20$$

4)  $8 + 5x = 33$

$$x = 5$$

5)  $6 + 30z = 66$

$$z = 2$$

6)  $7b + 5 = 26$

$$b = 3$$

