

# Steps for Solving Algebra Equations

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1. Identify what is being done to the variable
2. Do the inverse operation to both sides of the equation
3. Solve for the variable

**Example 1:**  $x + 5 = 12$

$$\begin{array}{r} x + 5 = 12 \\ \underline{-5} \quad \underline{-5} \\ x = 7 \end{array}$$

**Example 2:**  $x - 9 = 17$

$$\begin{array}{r} x - 9 = 17 \\ \underline{+9} \quad \underline{+9} \\ x = 26 \end{array}$$

**Example 3:**  $3x = 48$

$$\begin{array}{r} \frac{3x}{3} = \frac{48}{3} \\ x = 16 \end{array}$$

**Example 4:**  $\frac{x}{8} = 12$

$$\begin{array}{r} \frac{x}{8} \cdot \frac{8}{1} = \frac{12}{1} \cdot \frac{8}{1} \\ x = 96 \end{array}$$