

## Solving Equations RECAP

One Step

$$\begin{array}{r|l} 13 = x + 5 & \\ -5 & -5 \\ \hline 8 = x & \end{array}$$

$$\begin{array}{r|l} -12m = 96 & \\ -12 & -12 \\ \hline m = -8 & \end{array}$$

$$-x + 3 = 7$$

$$\begin{array}{r|l} 3 - x = 7 & \\ -3 & -3 \\ \hline -x = 4 & \\ -1 & -1 \\ \hline x = -4 & \end{array}$$

$$\begin{array}{r|l} x & \\ 4 & = -15 \\ \hline x = -60 & \end{array}$$

## Two Step Equations

$$\frac{2x + 6}{5} = 14$$

$$\begin{array}{r} 2x + 6 = 70 \\ -6 \quad -6 \\ \hline 2x = 64 \end{array}$$

$$x = 32$$

$$\frac{-7}{8}h = -7$$

$$\begin{array}{r} -7h = -56 \\ -1 \quad -1 \\ \hline h = 8 \end{array}$$

$$\begin{array}{r} 3n - 7 = 77 \\ +7 \quad +7 \\ \hline 3n = 84 \end{array}$$

$$\frac{3n}{3} = \frac{84}{3}$$
$$n = 28$$

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

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

$$\frac{2x}{2} = \frac{18}{2}$$

$$x = 9$$

# Multi-Step Equations

$$\begin{array}{r|l} (2a) + 3 - 8a & = 8 \\ \hline -6a + 3 & = 8 \\ -3 & -3 \\ \hline -6a & = 5 \\ -6 & -6 \\ \hline a & = -5/6 \end{array}$$

Variables on Both Sides

$$\begin{array}{r|l} 5(x + 4) & = 6x - 5 \\ 5x + 20 & = 6x - 5 \\ -5x & -5x \\ \hline 20 & = x - 5 \\ + 5 & + 5 \\ \hline 25 & = x \end{array}$$

$$\begin{array}{r|l} 2x + 5(-3x - 10) & = -154 \\ \hline 2x - 15x - 50 & = -154 \\ -13x - 50 & = -154 \\ + 50 & + 50 \\ \hline -13x & = -104 \\ -13 & -13 \\ \hline x & = 8 \end{array}$$

$$\begin{array}{r|l} (3x - x) + 4 & = 4(2x - 1) \\ \hline 2x + 4 & = 8x - 4 \\ -2x & -2x \\ \hline 4 & = 6x - 4 \\ + 4 & + 4 \\ \hline 8 & = 6x \\ 6 & 6 \\ \hline x & = 8/6 \text{ OR } 4/3 \end{array}$$