

8th Grade Lesson 96

- I can solve multiple-term equations.

When equations have like terms on either side of the equal sign, the first step in the solution is to combine the like terms.

$$4x + 2 + 3x - 2x = 12$$

$$x + x + x + x + 2 + x + \cancel{x} + \cancel{x} + \cancel{-x} + \cancel{-x} = 12$$

$$5x + 2 = 12$$

$$\begin{array}{r} -2 \quad -2 \\ \hline \end{array}$$

$$\begin{array}{r} 5x = 10 \\ \hline \frac{5}{5} \quad \frac{5}{5} \\ \hline \end{array}$$

$$x = 2$$

$$3x - 3 - x - 4x = 5x + 12 - 2x$$

$$-2x - 3 = 3x + 12$$

$$\begin{array}{r} -3x \qquad -3x \\ \hline \end{array}$$

$$\begin{array}{r} -5x - 3 = 12 \\ \quad +3 \quad +3 \\ \hline \end{array}$$

$$\begin{array}{r} -5x = 15 \\ \quad -5 \quad -5 \\ \hline \end{array}$$

$$x = -3$$

$$4x + 5 + 3x - x = -7x - 8$$

$$6x + 5 = -7x - 8$$

$$6x + 5 + 7x = -7x - 8 + 7x$$

$$13x + 5 = -8$$

$$\begin{array}{r} -5 \qquad -5 \\ \hline \end{array}$$

$$\begin{array}{r} 13x = -13 \\ \quad 13 \quad 13 \\ \hline \end{array}$$

$$x = -1$$

Assignment

Test #23 on Friday

Problem Set 96

***A/B Optional: #1, 4, 7-8, 11-13, 21-28, 30**