

March.29th, 2016

Unit 4 Day 2

4-1 Simplifying Equations

$$1) \quad \begin{array}{l} x = \\ 6x - 5 = 5x + 2 \\ -5x \quad -5x \end{array}$$

$$x - 5 = 2$$

$$+5 \quad +5$$

$$x = 7$$

$$2) \quad \begin{array}{l} -5x + 4 = 12 - 4x \\ +4x \quad +4x \end{array}$$

$$-x + 4 = 12$$

$$-4 \quad -4$$

$$-x = 8$$

$$x = -8$$

$$3) \quad \begin{array}{l} 7x - 2 - 2x + 1 = 6x \\ 5x - 1 = 6x \\ -5x \quad -5x \end{array}$$

$$-1 = x$$

$$x = -1$$

$$4) \quad \begin{array}{l} -2x + 5 = -3x + 4 - 2x - 1 \\ -4x + 5 = -5x + 3 \end{array}$$

$$+5x \quad +5x$$

$$x + 5 = 3$$

$$-5 \quad -5$$

$$x = -2$$

$$5) \quad \begin{array}{l} 3(x+2) - 2(x-1) = 7 \\ 3x + 6 - 2x + 2 = 7 \\ x + 8 = 7 \end{array}$$

$$-8 \quad -8$$

$$x = -1$$

Distribute!

$$6) \quad -4(x-2) = -2(x+5) - (x-7)$$

$$-4x + 8 = -2x - 10 - x + 7$$

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

$$+3x \quad +3x$$

$$-x + 8 = -3$$

$$-8 \quad -8$$

$$-x = -11$$

$$x = 11$$

7) The sum of two consecutive integers (is the same as) seven more than the first #. Find the first #.

Let x be 1st #. (Let statement).
 $x+1$ is 2nd #.

$$\underbrace{x}_{1^{\text{st}}} + \underbrace{x+1}_{2^{\text{nd}}} = x + 7$$

$$2x + 1 = x + 7$$

$$-x \quad -x$$

$$x + 1 = 7$$

$$-1 \quad -1$$

$$x = 6$$

8) 4 more than 5 times a # is equal to the product of 4 and 3 less than the #.

Let x be the #.

$$5x + 4 = 4(x - 3)$$

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

$$-4x \quad -4x$$

$$x + 4 = -12$$

$$-4 \quad -4$$

$$x = -16$$

Practice Day 2