Beginning Algebra ~ Lesson 10

Work the following examples as you listen to the recorded lecture.

Multiplication Property of Equality

Remember -

- 1. We can multiply or divide both sides of an equation by the same number.
- 2. Division by the coefficient of the variable is usually the final step in solving an equation.

Steps for solving equations:

- 1. **Simplify each side** of the equation by distributing multiplication and/or combining like terms.
- 2. Get the variable terms to the same side by adding or subtracting the smaller term.
- 3. Get rid of any number that is added or subtracted on the side with the variable by performing the opposite operation.
- 4. **Divide** both sides by the **coefficient** of the variable.

Solve:

Example 1:
$$-7x = -49$$

Example 2:
$$3x - 1 = 26$$

Example 3:
$$-x + 4 = -24$$

Example 4:
$$8t + 5 = 5$$

Example 5:
$$4a + a = -1 + 3a - 1 - 2$$

Example 6:
$$8 + 4 = -6(5x - 2)$$

Example 7:
$$4p - 11 - p = 2 + 2p - 20$$

Example 8:
$$-19 + 74 = -5(x + 3)$$