

**Prealgebra ~ Lesson 14**

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

**Simplifying Algebraic Expressions**

**Terms** – separated by addition or subtraction       $-5x + 3y - 2$

**Expression** – no equal sign       $x + 11y + 2$

**Equation** – has an equal sign, therefore it has two sides       $3x - 6 = 8 + x$

**Variable** – the unknown, represented with letters       $-3x$

**Coefficient** – the number multiplied times the variable       $37x^2y^4z$

**Combining like terms** can only be done when the variables are identical.

Remember the **sign stays with the term that follows.**       $-2x + 4y - 1$

When **distributing multiplication**, always use the sign in front of the term.

$$-4(2x - 3)$$

Example 1:  
 $8y + 3y$

Example 2:  
 $7z - 10z$

Example 3:  
 $5y - 7x + 6y + 8x + 2$

Example 4:  
 $4(4x)$

Example 5:  
 $-4(3x + 7)$

Example 6:  
 $2[4 - 3(7x + 5)]$

Example 7:  $-3[2x - 4(x + 2) - 3]$

Example 8:  $8z + 5(6 + z) + 20$

Example 9:  $-(12b + 10) + 5(3b - 2)$

Example 10:  $3(5x + 2) + 2(3x + 1)$