

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