## Algebra 2 Lesson 1-2: Algebraic Expressions Mrs. Snow, Instructor

In Algebra 1, you learned the key words to addition, subtraction, multiplication and division:

ADDITION	SUBTRACTION	MULTIPLICATION	DIVISION
plus	minus	product	quotient
add	difference	times	ratio
increase	decrease	square	per

You also learned to use the order of operations to evaluate expressions: P-E-M-D-A-S (please excuse my dear Aunt Sally). Let's not forget simplifying expressions by combining "like" terms.

All of these ideas interact with each other to simplify and evaluate algebraic expressions.

**Example:** Write an algebraic expression for "The cost of a movie tickets (m) at \$9.50 each."

**Example:** Evaluate:  $n^2 - 3ny + y^2$ , when n=4 and y= -2

**Example:** The first man made satellite to orbit the earth was the Russian made satellite Sputnik 1, on October 6, 1957. Sputnik orbited the earth every 96 minutes. a) How many orbits did Sputnik make in one day?

b) Sputnik 1 was in orbit 96 days before it reentered the earth's atmosphere and burned up. How many orbits did Sputnik make in its 96 day life span?

**Example:** Simplify the expression by combining like terms:  $3(a^2 + 6ab + b^2) + 3a^2 - 4ab - 2b^2$ 

**Example:** Write an expression for the perimeter of the figure shown below. If the value of a=2 and b=3, find the perimeter of the figure above.

