**Reading Guide #4: 2.1abc**

Carefully read the ***Instruct*** portion in Hawkes for the section listed. You are preparing your mind for the classroom lecture by viewing this material beforehand. Learning to read a math textbook is a skill different from reading other types of texts or books. Slow down and read ALL the details – learn to “hear” the authors’ voice – this will take some time, effort and practice. When you feel frustrated, take a short break from your studies. Come back, and try again.

Section 2.1a: Variables and Algebraic Expressions

Objectives

Identify the following algebraic expressions:

* Variables
* Constants
* Terms
* Coefficients

Instruct

1. Define TERM and give an example of an algebraic expression with two terms.
2. Define VARIABLE TERM and give an example.
3. Define a CONSTANT TERM and give an example.
4. Define numerical coefficient and give an example.

If we have the term , the coefficient is understood to be \_\_\_\_\_\_\_\_\_\_, since . Similarly, the coefficient of the term  is understood to be \_\_\_\_\_\_\_\_\_\_\_\_.

In the expression, identify the variables and constants.

Variables: Constant(s):

In the expression, what is the **COEFFICIENT** associated with the y variable? What is the **COEFFICIENT** associated with the x variable?

Coefficient of y variable: \_\_\_\_\_\_\_\_\_\_\_\_ Coefficient of x variable: \_\_\_\_\_\_\_\_\_\_\_\_

Section 2.1b: Simplifying Expressions

Objectives

* Simplify algebraic expressions by combining like terms.
* Simplify algebraic expressions with parentheses by combining like terms.

Instruct

1. Are 2x and 5x like terms? Why or why not?
2. Are  and 6x like terms? Why or why not?
3. Circle the like terms in the expression: 
4. Simplify the following expression: 
5. Copy the 2 steps for simplifying an algebraic expression:
6. Define the distributive law.

Section 2.1c: Evaluating Algebraic Expressions

Objectives

* Evaluate expressions for given values of the variables.

Instruct

1. In most cases, if an expression is to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, like terms should be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ first and then the resulting expression evaluated by following the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Why is it recommended to use parentheses around negative numbers when substituting?
3. Evaluate the following for x=2. \*\*Notice Hawkes’ 4. Copy the steps to evaluate an algebraic expression.

example with regards to the negative sign.

* 1. x2 =
	2. -x2 =
	3. (–x)2 =

5. Evaluate the following expressions. (Solve by substituting)

6. On slide 7, find and select the green wording saying, ***Reducing Fractions.*** Read the information contained here and below, write the example fraction used and its reduced form.