Lesson 1.8 Notes
Variables and Expressions

Name: KEY Date:

- Expression: A MATH PROBLEM WITHOUT AN EQUAL OR INEQUALITY SIGN.
- Examples:

1. $5+4-3$
2. $8*2+1$
3. $\frac{7-9}{5}$
4. $-2.8+1\frac{1}{2}$

- Order of Operations

1. P - PARENTHESES
2. E - EXPONENTS
3. MD - ALL MULTIPLICATION AND DIVISION FROM LEFT TO RIGHT →
4. AS - ALL ADDITION AND SUBTRACTION FROM LEFT TO RIGHT →

  - Examples: Evaluate each expression.

1. $9*2-24\div-6$

$18-24\div-6$

$18+4=\boxed{22}$

2. $5+2(4-7)^2$

$5+2(-3)^2$

$5+2(9)$

$5+18=\boxed{23}$

- Variable: A LETTER THAT REPRESENTS A NUMBER OR VALUE.

- Algebraic Expression: AN EXPRESSION WITH AT LEAST ONE VARIABLE.

  - Terms: THE NUMBER OF PARTS IN AN EXPRESSION

  - Coefficient: A NUMBER IMMEDIATLY LEFT OF A VARIABLE.

Examples:

1. In the algebraic expression $6x + 8$,

   a) What are the terms? 6x AND 8

   b) What is the coefficient of x? 6

2. In the algebraic expression $5y - 2 + 4x$,

   a) What are the terms? 5y, -2, AND 4x

   b) What is the coefficient of x? 4

   c) What is the coefficient of y? 5

3. Evaluate the algebraic expression $4x - 2y + z$ for $x = -1, y = 3, x = 6$.

$4(-1) - 2(3) + 6$

$-4 - 6 + 6$

$-10 + 6 = \boxed{-4}$