

# Interpret Language in Math Expressions – NOTES Answer Key

Name: \_\_\_\_\_ Class Period: \_\_\_\_\_

## Definitions:

Vocabulary	Definition	Examples
<u>Algebraic Expression</u>	<p><u>math</u> A <u>mathematical statement that includes numbers, operations, and variables</u> to represent a number or a quantity</p> <p>(has <u>NO</u> =)</p>	$8x + 4$
Variable	A letter used to represent a value or <u>unknown quantity</u> that can change or vary	$x, y, n, p$
Term	A number, a variable, or the product of a number and variables (Terms separated by + or -)	$(8x) + (4) = 2 \text{ terms}$ $(2x^2) + (6x) + (1) = 3 \text{ terms}$
Like Terms	Terms that contain the same variables raised to the same power	$4p^3 - 6p - 2p^3 + 5p^2$ $4p^3, -2p^3 = \text{like term}$
Coefficient	The number multiplied by a variable in an <u>algebraic expression</u> (# in front of variable)	$7y^4$ $7 = \text{coefficient}$
Exponent (power)	The number of times a factor is being multiplied together in an <u>exponential expression</u> ,	$a^b$ b is the exponent $x^4 = x \cdot x \cdot x \cdot x$
Base	The factor being multiplied together in an <u>exponential expression</u>	$a^b$ a is the base $x^4 = x \text{ is base}$
Constant	A quantity that does not change (# without variable)	$6x^2 + 2x + 5$ $5 \text{ is constant}$
Factors	One of two or more numbers or expressions that when multiplied produce a given product	$3x^2 = 3 \cdot x \cdot x$ <hr/> $(2x+4)(x-7)$ 1st                  2nd Factor              Factor

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# PEMDAS

HW Prob.

Order of Operations	The order in which expressions are evaluated from left to right  (grouping symbols, exponents, multiplication and division, addition and subtraction)	
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Translations: Fill in the appropriate words for each math operation.

<del>Half</del>	<del>Decreased</del>	<del>Take away</del>	<del>Double</del>
<del>Plus</del>	<del>Twice</del>	<del>Increased</del>	<del>Add</del>
<del>Triple</del>	<del>Less Than</del>	<del>Cubed</del>	<del>Times</del>
<del>More Than</del>	(swaps the order)	<del>Minus</del>	<del>Together</del>
<del>Difference</del>	<del>Raised to a power</del>	<del>Quotient</del>	<del>Square</del>
<del>To the power of</del>		<del>Product</del>	
<del>Sum</del>		<del>Divide by</del>	

Addition- (6 words)

Plus, More than, sum, Increased, Add, Together

Subtraction- (5 words)

Difference, Decreased, Less than, Take away, minus

Division- (3 words)

Half, Quotient, Divide by

Multiplication- (5 words)

Twice, product, Double, Times, Triple

Exponents- (4 words)

To the power of, raised to a power, cubed, Square

1. The sum of a number and 10

$$x + 10$$

2. The product of 9 and x squared

$$9x^2$$

3. 9 less than g to the fourth power

$$g^4 - 9$$

4.  $8 + 3x$

Eight more than 3 times X