Unit 4: Variable Expressions

Name:_____

Lesson 3: Evaluating Variable Expressions

Hour:_____

ɔtes 4.3

Vocabulary

Numerical Expression: Consists of numbers and operations (+ - * ÷ ...)

Variable: A letter that represents an unknown quantity.

Variable Expression: consists of numbers, operations and variables.

Equation: A mathematical sentence formed by placing an equal sign between two expressions.

Order of Operations	PEMDAS	GEMS
Parentheses	Please	Grouping Symbols
Exponents	Excuse	Exponents
Multiplication/Division	My Dear	Multiplcation & Division
Addition/Subtraction	Aunt Sally	Subtraction & Addition

Evaluating Variable Expressions

Evaluate the following expressions:

1) $4m + 3n^2$ *when* $m = 1.2$ *and* $n = -6$

$4(1.2) + 3(-6)^2$
$4(1.2) + 3(+36)$
$4.8 + 108$
$\boxed{112.8}$

2) $(n + p)^2 - 4.3$ *when* $n = 6$ *and* $p = 3$

$(6+3)^2 - 4.3$
$(9)^2 - 4.3$
$81 - 4.3$
$\boxed{76.7}$

3) $\frac{n^3-16}{p^2-5}$ *when* $n = 2$, *and* $p = -3$

$\frac{(2)^3 - 16}{(-3)^2 - 5} = \frac{8-16}{9-5} = \frac{-8}{4} = \boxed{-2}$

4) $\frac{17+2*8}{25-x}$ *when* $x = 14$

$\frac{17+2*8}{25-14} = \frac{17+16}{25-14} = \frac{33}{11} = \boxed{3}$

5) $x - (-y) - (-x) - y$ *when* $x = 9$ *and* $y = -4$

$9 - (--4) - (-9) - -4$
$9 - 4 + 9 + 4$
$\boxed{18}$

6) $m[n + (14 - p)] - 4$ *when* $m = 2$, $n = -2$, *and* $p = -1$

$2[(-2) + (14 - (-1))] - 4$
$2[-2 + 15] - 4$
$2[13] - 4$
$26 - 4$
$\boxed{22}$

Homework: Evaluating Variable Expressions wkst.

Adapted: Evaluating Variable Expressions wkst. #1-5