

1.1: Evaluate Expressions

Goals: *Evaluate algebraic expressions using basic operations

*Evaluate algebraic expressions using exponents

Variable - _____, or symbol, used to represent one or more _____.

Ex:

Value – the _____ that replaces a variable.

Ex:

Expression - _____ sentence that has _____, _____, and _____.
(**It does **NOT** have an _____ !!!)

Ex:

Algebraic expression – an _____ that has at least one _____.

Algebraic Expression	Meaning	Operation
1.		
2.		
3.		
4.		

Do **NOT use _____ to show multiplication anymore!

Steps to Evaluate an expression:

1. Write down the _____.

Ex: Evaluate $13n$ when $n = 3$

2. _____, or change the variable to
its _____.

3. Simplify. (Do the _____)

*Be sure to follow _____ if there is more than
one step.

Evaluate when $n = 3$.

Ex: $\frac{9}{n}$

Ex: $n - 1$

Ex: $n + 8$

Evaluate when $y = 2$.

Ex: $6y$

Ex: $\frac{8}{y}$

Ex: $y + 4$

Evaluate when $c = 4$.

Ex: $4c$

Ex: $15 + c$

Ex: $17 - c$

Ex: The total cost of going to the movies can be represented by the expression $a + r$ where a is the cost of admission and r is the cost of refreshments. Suppose you pay \$7.50 for admission and \$7.25 for refreshments, find the total cost of going to the movies.

Exponents:

Power:

Base:

Exponent:

Ex: $3^4 =$ _____

Say in words and write out as multiplication:

Ex: $5^2 =$ _____

Ex: $\left(\frac{1}{2}\right)^3 =$ _____

Ex: $7^1 =$ _____

Ex: $x^5 =$ _____

Evaluate the expressions for the given values.

Ex: $x^4, x = 2$

Ex: $n^3, n = 1.5$

Ex: $y^5, y = 3$

Ex: $x^3, x = 8$

Ex: $k^2, k = 2.5$

Ex: $d^4, d = 1$

Ex: The edge of a medium-size storage cube is 14 inches long. Find the volume of the storage cube.

Ex: Find the area of a square garden whose side length is 22 feet.