

## Unit 1 Study Guide

\*\*\*Be sure to study ALL vocabulary words.\*\*\*

Evaluate these problems involving exponents.

1.  $2^3$  8

2.  $13^2$  169

3.  $12^0 \times 4^2$  16

4.  $(10 + 3)^2$  169

Evaluate each problem. Remember to follow the order of operations.

5.  $6 + 21 \div 3 - 9 =$  4

6.  $3 \times 6 + 14 \div 2 =$  25

7.  $3^2 + 10 \div 2 + 2 =$  16

8.  $(3 \times 3)^0 + (4 \times 2) =$  9

9.  $8(2 + 3) - 6^0 =$  39

10.  $10 \times 29 + (10 - 2) =$  298

Solve each word problem.

11. Sam's soccer team has a phone tree in case a soccer game is postponed or cancelled. The coach calls 2 families. Then the family calls 2 other families. How many families will be notified during the 5<sup>th</sup> round of calls?

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12. How do you write  $4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4$  in exponential form?

$4^7$

Write each of the following in words two different ways, then evaluate each expression:

13.  $4^2$  *Four squared* 16  
*Four to the second power*

14.  $8^3$  *Eight cubed* 512  
*Eight to the third power*