Name_____ Date_____

EXPONENTS

Vocabulary:

EXPONENT: *A NUMBER THAT TELLS HOW MANY TIMES ANOTHER NUMBER, CALLED THE BASE, IS USED AS A FACTOR.*

BASE: *THE NUMBER BEING MULTIPLIED REPEATEDLY.*

Example	Base	Exponent	What does it mean?	What does it equal?
10^3 "10 cubed"	10	3	3 factors of 10 $10 \times 10 \times 10$	1000
5^4 "5 to the 4th power"	5	4	4 factors of 5 $5 \times 5 \times 5 \times 5$	$5 \times 5 \times 5 \times 5$ 25×25 625
cm^2 "cm squared or square cm"	cm	2	$cm \times cm$	cm^2
cm^3 "cm cubed or"	cm	3	$cm \times cm \times cm$	cm^3

Some Thoughts on Exponents...

Example 1:

Write an expression using equal factors.

Then, find the value.

a.) 2^4

b.) 5^3

Example 2:

Which expression below is equivalent to $3^2 \times 3^?$?

A. 3^6

B. 3^5

C. 9^6

D. 9^5

Example 3:

Use one or more exponents to write the expression.

$$3 \times 5 \times 5 \times 3 \times 5 \times 5 \times 3$$