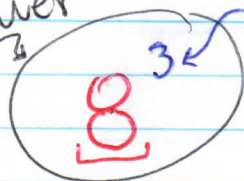


# Topic: Exponent Review

Objective: work with exponents

power



exponent

"eight cubed"

base

$$8 \cdot 8 \cdot 8$$

A power expresses a number (base) multiplied by itself a number of times (exponent)

\* Evaluate the exponential expressions

(ex)  $5^4 = 5 \cdot 5 \cdot 5 \cdot 5 = 625$

(ex)  $2^3 = 2 \cdot 2 \cdot 2 = 8$

(ex)  $-4^2 = -4 \cdot 4 = -16$

(ex)  $(-4)^2 = (-4)(-4) = 16$

\* the exponent only applies to what it is "touching"

(ex)  $5x^3 = 5 \cdot x \cdot x \cdot x$

(ex)  $(5x)^3 = (5x)(5x)(5x)$   
 $5 \cdot 5 \cdot 5 \cdot x \cdot x \cdot x$

\* Write in exponential form

(ex)  $2 \cdot 2 \cdot 2 \cdot x \cdot x \cdot y$

$2^3 x^2 y$   
 $8x^2 y$

(ex)  $6 \cdot x \cdot x \cdot x$

$6x^3$