Review Exponent Operations

Vocabulary:

Ex. $5^3 = 5 \cdot 5 \cdot 5 = 125$ **Algebraic Rule:** $x^n = x \cdot x \cdot x ... n$ times

Exponent: _____

Base: _____

Power: _____

Evaluate: _____

^: _____

Example 1: Writing in exponential notation

Expanded Form	Exponential Notation	Evaluate (Fraction or Decimal)
$3 \cdot 3 \cdot 3 \cdot 3$		
$(-4)(-4)(-4)$		
$(-2)(-2)(-2)(-2)$		
$\left(\dfrac{2}{3}\right)\left(\dfrac{2}{3}\right)$		
	$(-5)^2$	
	-5^2	

Try-It!

a. How would we write $(-3)^2$ in expanded form?

b. How would we write -3^2 in expanded form?

c. Explain whether or not $(-3)^2$ is equivalent to -3^2.

Try Its:

Tell whether each statement is correct. Show work to support your answer.

a) $2 \cdot 2 \cdot 2 = 6\text{\textasciicircum}3$

b) $23^4 = 23^2 \cdot 23^2$

c) $-(5)^4 = (-5)(-5)(-5)(-5)$

d) $\left(-\dfrac{4}{5}\right)^2 \left(-\dfrac{4}{5}\right) = \left(-\dfrac{4}{5}\right)^3$

e) $3^4 \cdot 5^4 = 15^4$

f) $5^2 \cdot 6^3 = 30^5$