

Chapter 2-1 Exponents and Order of Operations.

SWBAT use the order of operations and simplify expressions with exponents.

Vocabulary:

Exponent - Tells you how many times a number will be factored. (multiplied)

Base - The root number being factored.

Power - raising a number to be multiplied x number of times.

$$3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$$

3^5 - three raised to the fifth power

3 - Base Number

5 - Power or Exponent.

$$\begin{array}{c} 4 \\ \wedge \end{array} (-2) \cdot (-2) \cdot (-2) = -8$$

$$(-2)^3 = -8$$

Negative two raised to the third power

Order of Operations

- 1.) Do all grouped math first
- 2.) To solve any Exponentials
- 3.) To Multiply OR Divide
whichever comes first
- 4.) To Add OR Subtract whichever
comes first.

P
E
M or D
A or S

$$-2^4 \text{ Yon} = (-2)^4$$

-2^4 = The opposite of
Two Raised the
fourth power

$$-(2 \cdot 2 \cdot 2 \cdot 2) = -16$$

$$\begin{aligned} (-2)^4 &= (-2)(-2)(-2)(-2) \\ &= 16 \end{aligned}$$

$$\begin{aligned} &-2^4 + (3-5)^4 \\ &\checkmark \quad \checkmark \quad \text{rewrite} \\ &-2^4 + (-2)^4 \\ &-16 + 16 = 0 \end{aligned}$$

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

$$21 \cdot (-12) =$$

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