

PROPERTIES OF INTEGER EXPONENTS 3

Directions: Using the numbers 0 to 9, without replication, fill in the blanks to generate equivalent numerical expressions:

$$x^1 \cdot x^6 \cdot x^2 \cdot x^7 \cdot x^3 \cdot x^8 \cdot x^5 \cdot x^4 \cdot x^9$$

$$x^5 \cdot x^5 \cdot x^5 \cdot x^5 \cdot x^5$$

PEMDAS with Exponents

Tip: Focus on one part of the expression at a time, ie: the coefficient, and/or variables

$$\frac{2m^{-4}}{8m^{-12}}$$

$$2m^{-4+12}$$

$$8$$

$$\frac{2m^8}{8}$$

$$\frac{m^8}{4}$$

$$\frac{2m^{-4}}{(2m^{-4})^3}$$

More Examples

$$x^4 y^3 \cdot (2y^2)^0$$

$$x^4 y^3 \cdot 1$$

$$x^4 y^3$$

$$(x^4)^{-3} \cdot 2x^4$$

$$x^{-12} \cdot 2x^4$$

$$2 \cdot x^{-12} \cdot x^4$$

$$2 \cdot x^{-12+4}$$

$$2x^{-8}$$

$$\frac{2}{x^8}$$

More...

$$\frac{2y^3 \cdot 3xy^3}{3x^2 y^4}$$

$$\frac{x^3 y^3 \cdot x^3}{4x^2}$$

$$\frac{2x^3}{(x^{-1})^3}$$

$$2x^{3+3}$$

$$2x^6$$

$$\frac{2x^3}{x^{-3}}$$

WHOA

$$\frac{(2x^3 z^2)^3}{x^3 y^4 z^2 \cdot x^4 z^3}$$

IXL
8th Grade
F.10
90 Smart score!