



Anything to the Zero Power Equals one

$$1. \frac{3y^0}{4} = \frac{3}{4}$$

$$2. \frac{(x^2)^0}{x} = \frac{x^0}{x} = \frac{1}{x}$$

If an exponent is raised to a negative power, I need to ... move it to the otherside of the fraction bar and make it positive.

$$3. \frac{4^{-5}}{3x^{-2}} = \frac{x^2}{4^5 \cdot 3}$$

$$4. \frac{2x^{-7}}{4^{-3}x} = \frac{2 \cdot 4^3}{x \cdot x^7} = \frac{2 \cdot 4^3}{x^8}$$

$$5. \frac{5x^{-4}y^{-2}}{4^{-5}x^{-7}} = \frac{5 \cdot 4^5 \cdot x^7}{x^4 y^2} = \frac{5 \cdot 4^5 \cdot x^3}{y^2}$$

$$6. \frac{4^{-y}}{3^{-2}} = \frac{3^2}{4^y}$$

Think. Pair. Share.

$$\begin{aligned} \text{a) } \frac{2^{-4}x^{-12}y^{-3}}{x^{-7}y^4} &= \frac{x^7}{2^4 x^{12} y^3 \cdot y^4} \\ &= \frac{x^7}{2^4 x^{12} y^7} \\ &= \frac{1}{2^4 x^5 y^7} \end{aligned}$$

$$\text{b) } \frac{5x^{-3}y^{-10}}{x^3 y^{10}}$$

$$\begin{aligned} \text{c) } \frac{(2x)^{-5}}{y^{-3}} &= \frac{2^{-5}x^{-5}}{y^{-3}} \\ &= \frac{y^3}{2^5 x^5} \end{aligned}$$

MAGNETS: Practice Makes Perfect!

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