



In your own words, drawings, description, etc. describe what a negative exponent is.

$$a^{-n} = \frac{1}{a^n} \quad \text{OR} \quad \frac{1}{a^{-n}} = a^n$$

Now, describe what a zero exponent is.

Anything to the zero power = 1

$$\frac{2^3}{2^3} = \frac{\cancel{2} \cdot \cancel{2} \cdot \cancel{2}}{\cancel{2} \cdot \cancel{2} \cdot \cancel{2}} = 1$$

Let's see what you got:

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

2. $\left(\frac{3z}{xy}\right)^0 = 1$

3. $\frac{5^{-2}}{1} = \frac{1}{5^2}$

4. $\frac{1}{4^{-3}} = \frac{4^3}{1}$

Magnet Practice:

5. $\frac{x}{2^{-4}} = \frac{2^4 x}{1} = \frac{16x}{1} = 16x$

6. $\frac{2^{-5}}{x^{-3}} = \frac{x^3}{2^5} = \frac{x^3}{32}$

7. $3x^0 = 3 \cdot 1 = 3$

8. $\frac{4x^{-7}}{y^{-5}} = \frac{4y^5}{x^7}$

