

# Negative Exponents - Part 2

October 17 8:59 AM

\* All the exponent laws can be used with negative exponents too.

Ex. Simplify. Answer with positive exponents only.

$$\textcircled{1} \quad \boxed{2x^{-5} \cdot 3x^2}$$

$$6x^{-5+2}$$

$$6x^{-3}$$

$$\frac{6}{x^3}$$

$$\textcircled{2} \quad 5 \left( \underline{\underline{2x^4}} \right)^{-3}$$

$$\begin{array}{l} \downarrow \text{got rid of} \\ \text{-3 exponent} \\ \frac{5}{(2x^4)^3} \end{array}$$

$$\frac{5}{2^3 x^{12}}$$

2 Methods:

$$\begin{array}{l} \swarrow \text{get rid of} \\ \text{brackets} \\ 5(2^{-3} x^{-12}) \end{array}$$

$$\frac{5}{2^3 x^{12}}$$

$$\textcircled{3} \quad \begin{array}{|c|c|c|c|} \hline 2x^5 & y^{-4} & z^{-3} & \\ \hline 4x^3 & y^{-3} & z^4 & \\ \hline \end{array}$$

Reduce

$$\frac{1x^2 y^{-1} z^{-7}}{2}$$

$$\frac{1x^2}{2y^1 z^7} = \frac{x^2}{2yz^7}$$

$$y: y^{-4} - -3 = y^{-4+3} = y^{-1}$$

$$z: z^{-3} - 4 = z^{-7}$$