

8 - 2

Dividing Monomials

Exponent Properties

$$\frac{a^m}{a^n} = a^{m-n}$$

$$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$$

** any # to the 0 power = 1



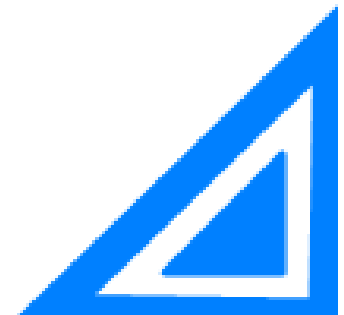
Ex: $\frac{a^5 b^8}{a^1 b^3}$ $\boxed{a^4 b^5}$

Ex: $\frac{x^5 y^2 z^4}{x^3 y^1}$ $\boxed{x^2 y z^4}$

Ex: $\left(\frac{2p^2}{3}\right)^4$ $\boxed{\frac{16p^8}{81}}$

$$\frac{4p^2}{10}$$

$$\frac{2p^2}{5}$$



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

Ex: $\frac{t^3}{t} = t^2$



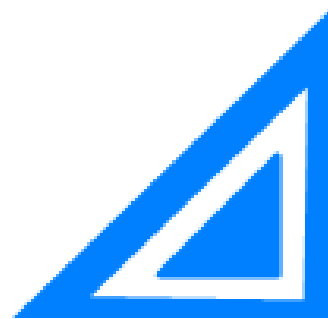
Negative Exponents

$$a^{-n} = \frac{1}{a^n} \quad x^{-4} = \frac{1}{x^4}$$

$$\frac{1}{a^{-n}} = \frac{a^n}{1} = a^n$$



Ex: $\frac{b^{-3}c^2}{d^{-5}} = \frac{d^5 c^2}{b^3}$



Ex:

$$\frac{-3a^{-4}b^7}{21a^2b^7c^{-5}}$$

$$\frac{-1c^5}{7a^6}$$



Ex:

$$\frac{75p^3q^{-5}}{15p^5q^{-4}r^{-8}}$$

$$\frac{5r^8}{p^2q}$$

$$-5 + 4$$

$$-1$$

$$q^{-1} = \frac{1}{q}$$



Homework:

8 - 2 WS (#1 - 27 odd)

