

Apply Exponent Properties Involving Quotients

Ex.

Quotient of Powers Property: $a \neq 0, \frac{a^m}{a^n} = a^{m-n}$

Ex1. $\frac{8^{10}}{8^4} = \boxed{8^6}$

Ex2. $\frac{(-3)^9}{(-3)^6} = \boxed{(-3)^3}$

Ex3. $\frac{5^4 \cdot 5^8}{5^7} = \frac{5^{12}}{5^7} = \boxed{5^5}$

Ex4. $\frac{1}{x^4} \cdot \frac{x^6}{1} = \frac{x^6}{x^4} = \boxed{x^2}$

Power of a Quotient Property: $b \neq 0, \left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$

Ex1. $\left(\frac{x}{y}\right)^3 = \boxed{\frac{x^3}{y^3}}$

Ex2. $\left(-\frac{7}{x}\right)^2 = \left(\frac{-7}{x}\right)^2 = \frac{(-7)^2}{x^2} = \boxed{\frac{49}{x^2}}$

Ex3. $\left(\frac{x^2}{4y}\right)^2 = \frac{x^4}{4^2 y^2} = \boxed{\frac{x^4}{16y^2}}$

Ex4. $\left(\frac{2s}{3t}\right)^3 \cdot \left(\frac{t^5}{16}\right) = \frac{2^3 s^3}{3^3 t^3} \cdot \frac{t^5}{16} = \frac{8s^3}{27t^3} \cdot \frac{t^5}{16} = \frac{8s^3 t^2}{432t^3} = \boxed{\frac{s^3 t^2}{54}}$

Homework:	
DAY 1:	DAY 2:

