

Quotient of Powers (Dividing Like Bases)

Name _____

Date _____ Period _____

Quotient of Powers

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

When dividing like **bases**, subtract the **exponents**

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

Zero Exponent Property

$$a^0 = 1$$

Negative Exponent Property

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

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

Product of Powers

$$x^m \cdot x^n = x^{m+n}$$

When multiplying like **bases**, add the **exponents**

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

When dividing like bases, subtract the exponents

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

$$\frac{x^2}{x^7}$$

$$\frac{2^7}{2^3}$$

$$\frac{3^3}{3^5}$$

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

When dividing like bases, subtract the exponents

$$\frac{a^{-4}}{a^{-2}}$$

$$\frac{a^{-4}}{a^{-2}}$$

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

When dividing like bases, subtract the exponents

$$\frac{2x^5y^7}{6x^2y^9}$$

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When dividing like bases, subtract the exponents

$$\frac{2x^5y^7}{6x^2y^9}$$

Must have all positive exponents to use this method.

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

When dividing like bases, subtract the exponents

$$\frac{s^{-2}t^5}{s^3t^4}$$

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

When dividing like bases, subtract the exponents

$$\frac{2^2a^5b^{-3}}{2^3a^{-2}b^5}$$

Quotient of Powers

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