

Laws of Exponents

EXP5

Quotient of Powers Property: (dividing)

$$\frac{a^b}{a^c} = a^{b-c}$$

when dividing and the bases are same, subtract the exponents

$$\frac{2^5}{2^3} = \frac{2*2*2*2*2}{2*2*2} = 2^2$$

num - denom

Power of a Quotient Property:

$$\frac{a^2}{b^2} = \frac{a^2}{b^2}$$

when dividing and the exponents are same, divide the bases

Example:

$$\frac{12^4}{4^4} = \frac{12*12*12*12}{4*4*4*4} = 3*3*3*3 = 3^4$$