

QUOTIENT OF POWERS (BLACK RANGER)

5



$$5 - 2 = 3$$

2 =



$$\frac{B \cdot B \cdot B \cdot B \cdot B}{B \cdot B}$$

TO DIVIDE POWERS WITH THE SAME BASE,  
SUBTRACT THE EXPONENTS.

$$\frac{x^4}{x^2} = x^{4-2} = x^2$$

$$\frac{w^3}{w^5} = w^{3-5} = w^{-2}$$

$$\frac{y^9}{y^{-3}} = y^{9-(-3)} = y^{12}$$

$$\frac{(-3)^5}{(-3)^2} = (-3)^{5-2} = (-3)^3$$

① Do we have the same base?

② Subtract the exponents

$$\frac{4^2}{4^{12}} = 4^{-2-12} = 4^{-14}$$

\* Start with the exponent in the numerator

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

$$\frac{10x^4}{10x^1} = \frac{10}{10} x^{4-1} = x^3$$

$$\frac{x^4 y^3}{xy} = x^{4-1} y^{3-1} = x^3 y^2$$

Law 6 \* Subtraction is adding the opposite

