



## Exponents

$$x^6 = x \cdot x \cdot x \cdot x \cdot x \cdot x$$

$$x^2 = x \cdot x$$

$$\frac{x^6}{x^2} = \frac{x \cdot x \cdot x \cdot x \cdot \cancel{x} \cdot \cancel{x}}{\cancel{x} \cdot \cancel{x}} = \frac{x^4}{1} = x^4$$

General rule:

$$\frac{x^p}{x^q} = x^{p-q}$$

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

$$\frac{c^9}{c} = c^{9-1} = c^8$$

$$\frac{x^5}{x^7} = x^{5-7} = x^{-2} = \frac{1}{x^2}$$

Don't forget:

$$x^{p-q} = \frac{x^p}{x^q}$$