



Exponents

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

$$x^3 = x \cdot x \cdot x$$

$$x^2 \cdot x^3 = x \cdot x \cdot x \cdot x \cdot x = x^5$$

General rule:

$$x^p \cdot x^q = x^{p+q}$$

$$p^5 \cdot p^3 = p^{5+3} = p^8$$

$$k^4 \cdot k^2 \cdot k^6 = k^{4+2+6} = k^{12}$$

$$x^{-3} \cdot x^4 = x^{-3+4} = x^1 = x$$

Don't forget:

$$x^{p+q} = x^p \cdot x^q$$

Useful when you have to simplify:

$$y = 3^{t+2}$$

At's

$$\begin{aligned} y &= 3^t \cdot 3^2 \\ &= 3^t \cdot 9 \\ &= 9 \cdot 3^t \end{aligned}$$