



**Objective:**

**Debrief:**

$$\frac{x}{x} = \frac{x \cdot x \cdot x}{x \cdot x \cdot x \cdot x \cdot x} = \frac{1}{x}$$

$$\frac{x^3}{x^5} = x^{3-5} = x^{-2} = \frac{1}{x^2}$$

$$\frac{x}{x} = x^1 = x$$

$$\frac{x}{x} = x$$

$$\frac{3^5 \cdot 2}{3} = \frac{3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 2}{3} = 3^4 \cdot 2 = 2 \cdot 3^4$$

$$= \frac{3}{3} + \frac{2}{3} = 1 + \frac{2}{3} = \frac{5}{3}$$

$$\begin{aligned} & \frac{x^2}{y^2} \\ &= \frac{x}{y} \cdot \frac{x}{y} \\ &= \frac{x \cdot x}{y \cdot y} \\ &= \frac{x^2}{y^2} \end{aligned}$$

$$\frac{x^2}{y^2} = \left(\frac{x}{y}\right)^2, \text{ where } y \neq 0$$

**NOT**

$$\begin{aligned} & \left(\frac{-3}{y}\right)^3 \\ &= \frac{-3}{y} \cdot \frac{-3}{y} \cdot \frac{-3}{y} \end{aligned}$$

$$\frac{-3}{y} \cdot \frac{-3}{y}$$

