

# Proportional Equations

11/21

ES: What is a proportional equation?

Proportional Ratios??

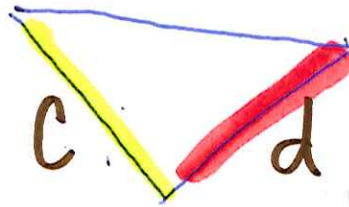
Ratios are proportional if they are the same or have equal ratios.

$$\frac{2}{4} = \frac{1}{2}$$

Proportional Equations

is an equation that compares two or more ratios.

The  $\Delta$ 's are similar

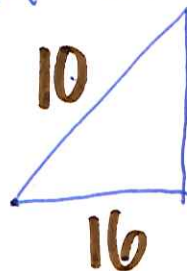
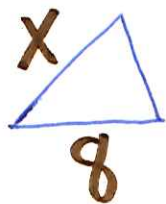


$$\frac{a}{b} = \frac{c}{d} \quad \text{or} \quad \frac{b}{a} = \frac{d}{c}$$

$$\frac{a}{c} = \frac{b}{d} \quad \text{or} \quad \frac{c}{a} = \frac{d}{b}$$

(ex)

Solve for X using Proportional Equations.



$$\frac{X}{10} \neq \frac{8}{16}$$

$$\frac{16X}{16} = \frac{80}{16}$$

$$X = 5$$

Summary