Questions

Proportion: Setting 2 ratios equal

$\frac{a}{b} = \frac{c}{d}$ $a * d = c * b$

Example 9:

Solve each proportion.

a. $\frac{x}{5} = \frac{12}{7}$ $7x = 5(12)$ $7x = 60$ $x = 60/7$ $x = 8.571428$

b. $\frac{y+3}{8} = \frac{y}{4}$ $y=3$

c. $\frac{x+1}{3} = \frac{x}{2}$ $x=2$

$2(x+1)=3x$

$2x+2 =3x$

Summary: Cross multiply to solve proportions!

$\frac{a}{b} \times \frac{c}{d}$ $ad = bc$

Questions 6.2 Essential Question: How do you show polygons are similar?

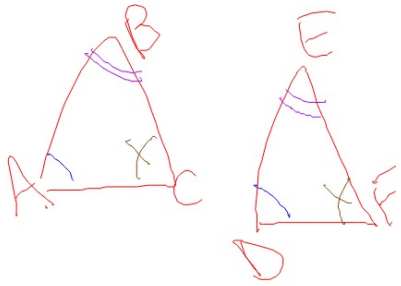
Two polygons are **similar** if:

1) Corresponding $\angle$s $\cong$

2) Corresponding sides proportional

Similarity Ratio: $\triangle ABC \sim \triangle DEF$ ← similar

$$\frac{AB}{DE} = \frac{BC}{EF} = \frac{AC}{DF}$$



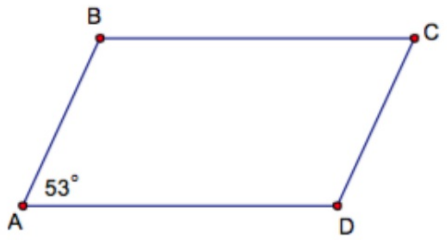
Questions

Example 1:

ABCD~EFGH. Complete each statement.

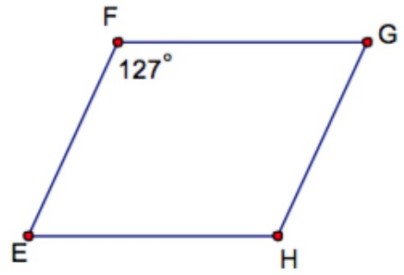
a. $m\angle E =$ $m\angle A = 53°$

b. $m\angle B =$ $m\angle F = 127°$



c. $\frac{AB}{EF} = \frac{AD}{?}$ EH

d. $\frac{GH}{CD} = \frac{FG}{?}$ BC



Example 2:

Determine whether the triangles are similar. If they are, write a similarity statement and the similarity ratio.

$\angle A \cong \angle F,\ \angle B \cong \angle E,\ \angle C \cong \angle D$