

Questions

Example 1:

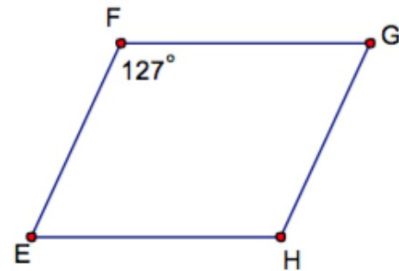
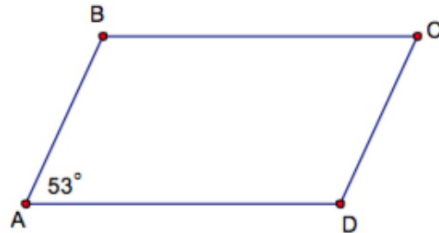
$ABCD \sim EFGH$. Complete each statement.

a. $m\angle E = m\angle A = 53^\circ$

b. $m\angle B = m\angle F = 127^\circ$

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

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

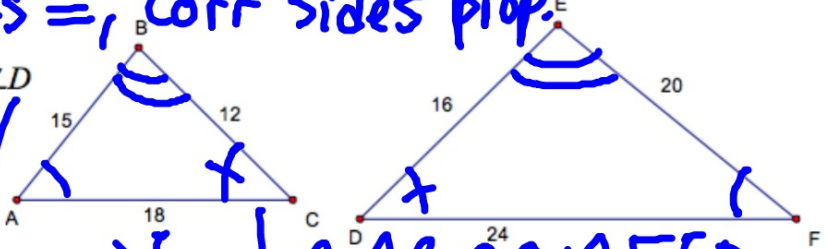


Example 2:

Determine whether the triangles are similar. If they are, write a similarity statement and the similarity ratio. *corr \angle s \cong , corr sides prop.*

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

$\frac{15}{20} = \frac{12}{16} = \frac{18}{24} \checkmark$



Yes! $\triangle ABC \sim \triangle FED$

Questions

Example 3:

Sketch $\triangle XYZ$ and $\triangle MNP$ with $\angle X \cong \angle M$, $\angle Y \cong \angle N$, $\angle Z \cong \angle P$. Also, $XY = 12$, $YZ = 14$, $ZX = 16$, $MN = 18$, $NP = 21$, and $PM = 24$. Can you conclude that the two triangles are similar? Explain.

Yes

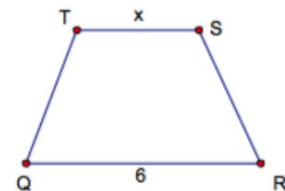
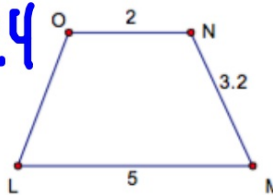
$$\triangle XYZ \sim \triangle MNP$$

Example 4:

a. $LMNO \sim QRST$. Find the value of x .

$x=2.4$

$$\frac{2}{x} = \frac{5}{6}$$



b. Find SR .

3.84

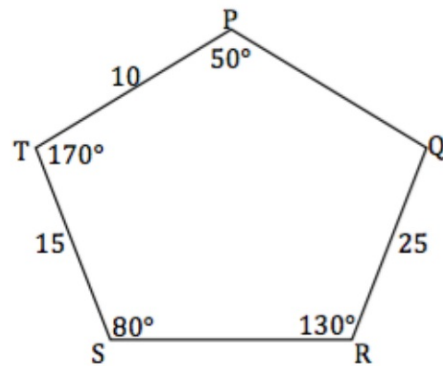
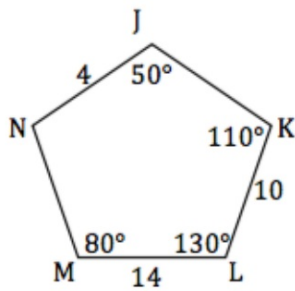
$$\frac{2}{2.4} = \frac{3.2}{SR}$$

$$\frac{5}{6} = \frac{3.2}{SR}$$

Questions

Example 5:

Pentagon JKLMN ~ Pentagon PQRST. Find each measure.



a. $m\angle N = 170^\circ$

b. $m\angle Q = 110^\circ$

c. $NM = 6$
 $\frac{10}{25} = \frac{NM}{15}$

d. $SR = 35$
 $\frac{10}{25} = \frac{14}{SR}$

Summary: