

What do you know about the angles in similar triangles?

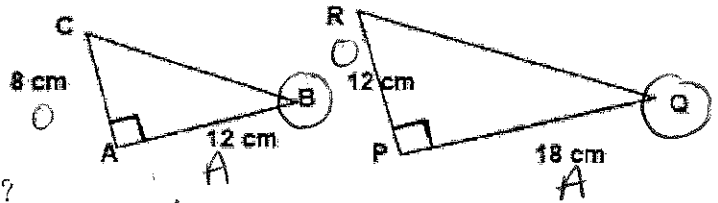
1. $\triangle ABC$ is similar to $\triangle PQR$.

a. Find $\tan B$. $\frac{O}{A} = \frac{8}{12} = .667$

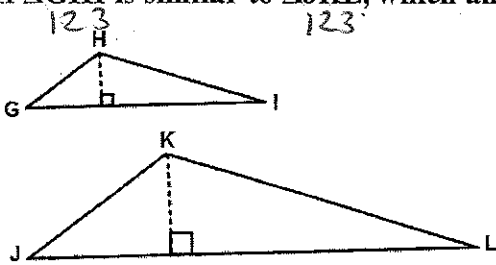
b. Find $\tan Q$. $\frac{O}{A} = \frac{12}{18} = .667$

c. What do you notice about $\tan B$ and $\tan Q$?

they are congruent



2. If $\triangle GHI$ is similar to $\triangle JKL$, which angles are congruent?



$\angle G \cong \angle J$
 $\angle H \cong \angle K$
 $\angle I \cong \angle L$

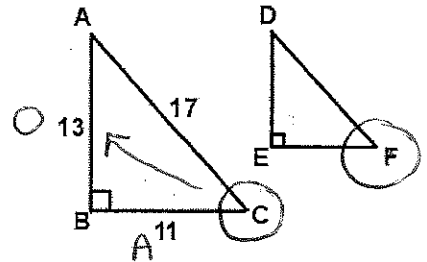
3. Given $\triangle HIJ$ is similar to $\triangle KLM$. If $\sin J = \frac{4}{9}$, find $\sin M$.

J and m are in the same position.

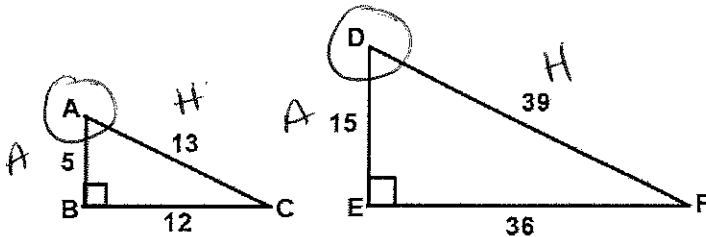
$\frac{4}{9}$

4. The diagram below shows two right triangles with the side measurements indicated. If $\triangle ABC$ is similar to $\triangle DEF$, find $\tan F$.

$\tan F = \frac{O}{A} = \tan C$
 $\frac{O}{A} = \frac{13}{11}$



5. Given $\triangle ABC$ is similar to $\triangle DEF$ and the given sides, which fractions represent $\cos A$ and $\cos D$?



$\cos A = \frac{A}{H} = \frac{5}{13}$

$\cos D = \frac{A}{H} = \frac{15}{39} = \frac{5}{13}$

6. Given the graphed triangles, what is the relationship between $\tan C$ and $\tan E$?

*\triangle 's are similar using AA similarity.
 $\tan C \cong \tan E$*

