

Geometry Worksheet
Similar polygons
Name _____

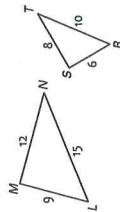
1. If polygons are similar then what do you know about the corresponding sides and the corresponding angles?

Given the similar figures, name all pairs of corresponding sides and angles. Look at the similarity statement to help.

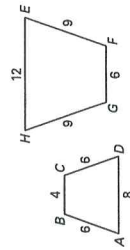
2. $\triangle PQR \sim \triangle DEF$



3. $\triangle LMN \sim \triangle RST$



4. $ABCD \sim HGFE$



$\overline{QP} \rightarrow$ _____ $\angle Q \cong$ _____
 $\overline{PR} \rightarrow$ _____ $\angle P \cong$ _____
 $\overline{RQ} \rightarrow$ _____ $\angle R \cong$ _____

$\overline{LM} \rightarrow$ _____ $\angle L \cong$ _____
 $\overline{MN} \rightarrow$ _____ $\angle M \cong$ _____
 $\overline{NL} \rightarrow$ _____ $\angle N \cong$ _____

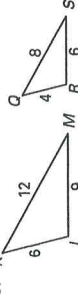
$\overline{AB} \rightarrow$ _____ $\angle A \cong$ _____
 $\overline{BC} \rightarrow$ _____ $\angle B \cong$ _____
 $\overline{CD} \rightarrow$ _____ $\angle C \cong$ _____
 $\overline{DA} \rightarrow$ _____ $\angle D \cong$ _____

Use the similar polygons above to write the statement of proportionality for each:

_____ = _____ = _____ = _____ = _____ = _____

Complete the similarity statement for the similar figures and then find the scale factor. **REDUCE** fractions!

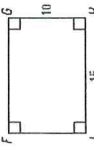
5. $KLM \sim \Delta$ _____



6. $CBAD \sim$ _____



7. $RSPQ \sim$ _____



$\triangle LKM \sim \Delta$ _____



$CBAD \sim$ _____



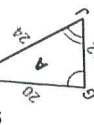
$RSPQ \sim$ _____



Scale Factor: _____

Scale Factor: _____

8. $\triangle HJG \sim \Delta$ _____



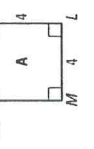
9. $\triangle NPM \sim \Delta$ _____



10. $KJML \sim$ _____



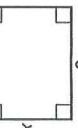
Scale Factor: _____



Scale Factor: _____



The two polygons are similar. Write a proportion and solve for x.



Complete the similarity statement for the similar figures and then find the scale factor. Next, write proportions and SOLVE for the missing lengths.

