

Geometry

6.3 Use Similar Polygons

Similar figures

- When two figures are the same _____ but different _____, they are _____.

Similar polygons (\sim)

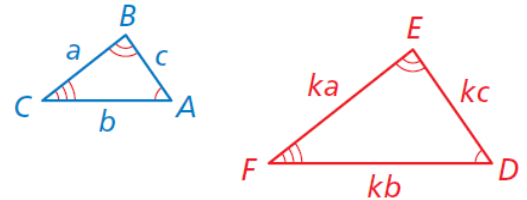
- Polygons are similar iff corresponding _____ are _____ and corresponding _____ are _____.
- Ratio of _____ of corresponding _____ is the scale _____.

Angles

- _____ \cong _____, _____ \cong _____, _____ \cong _____

Ratios of side lengths (_____)

- _____ = _____ = _____ = _____

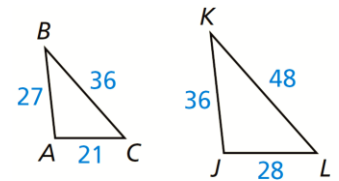


$\triangle ABC \sim \triangle JKL$

Find the scale factor from $\triangle ABC$ to $\triangle JKL$.

List all pairs of congruent angles.

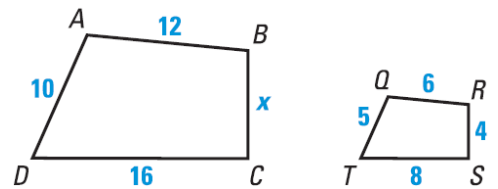
Write the ratios of the corresponding side lengths in a statement of proportionality.



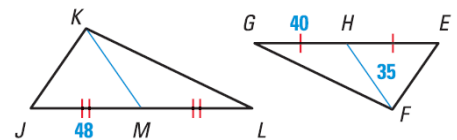
$ABCD \sim QRST$

What is the scale factor of $QRST$ to $ABCD$?

Find x.



$\triangle JKL \sim \triangle EFG$. Find the length of the median \overline{KM} .



Perimeters of Similar Polygons

If two polygons are similar, then the _____ of their _____ is equal to the ratios of their corresponding _____ lengths.

If $\triangle ABC \cong \triangle DEF$, then _____

Areas of Similar Polygons

If two polygons are similar, then the _____ of their _____ is equal to the _____ of the ratios of their corresponding _____ lengths.

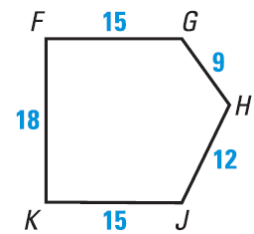
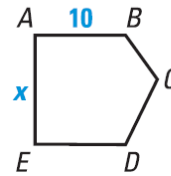
If $\triangle ABC \cong \triangle DEF$, then _____

$ABCDE \sim FGHIK$, the area of $FGHIK$ is 318 in^2

Find the scale factor of $FGHIK$ to $ABCDE$

Find the perimeter of $ABCDE$

Find the area of $ABCDE$



Assignment: 409 #2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 38, 40, 46, 49, 55, 56, 58, 60, 71 = 25 total