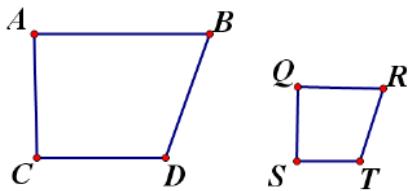


Similarity Notes

What are similar figures?

<http://www.youtube.com/watch?v=10-ieOZ5y6s&feature=related>

The notation for similar is like a congruence symbol but without the =.
 $\triangle ABC \sim \triangle XYZ$ reads triangle ABC is similar to triangle XYZ



Side _____ corresponds to side _____

Side _____ corresponds to side _____

Side _____ corresponds to side _____

Side _____ corresponds to side _____

Set up the corresponding sides as a ratio:

Their ratios form proportions. We use the proportions to state two equal ratios. When we talk about the ratios above we call them **side length ratios** or **scale factor**.

COMMON ERROR!!!!!! (write the common error below)

In addition to the sides being proportional, the corresponding angles _____.

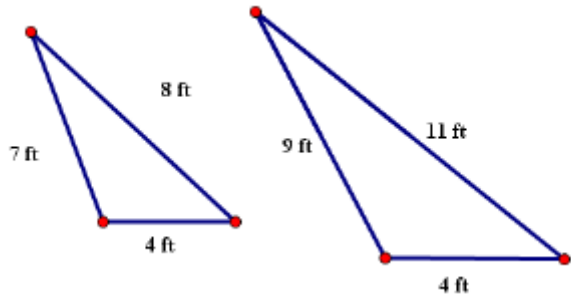
That means $m\angle$ _____ = $m\angle$ _____

That means $m\angle$ _____ = $m\angle$ _____

That means $m\angle$ _____ = $m\angle$ _____

That means $m\angle$ _____ = $m\angle$ _____

Example #1A

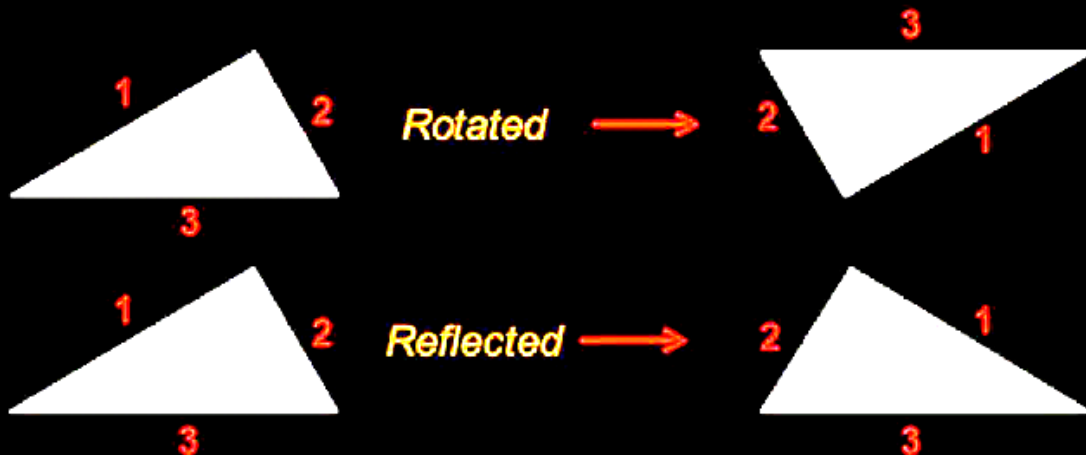


Set up side length ratios (scale factors) for each side length. Simplify each fraction.

Are they similar? Why or why not? _____

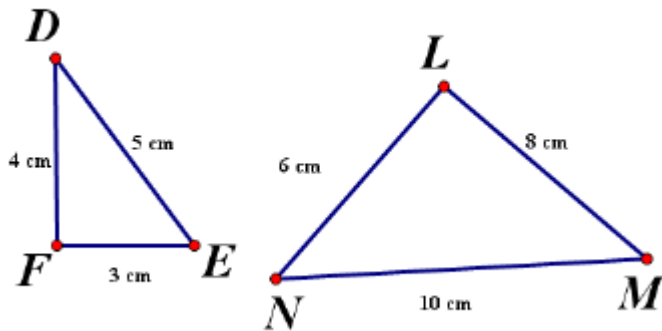
Similar Figures

Some similar images may not look similar because they are rotated or reflected.



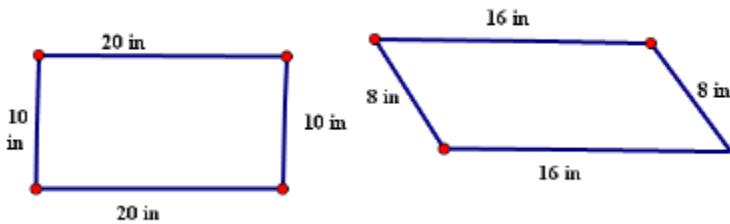
So, take your time when identifying corresponding sides.

Example #1B



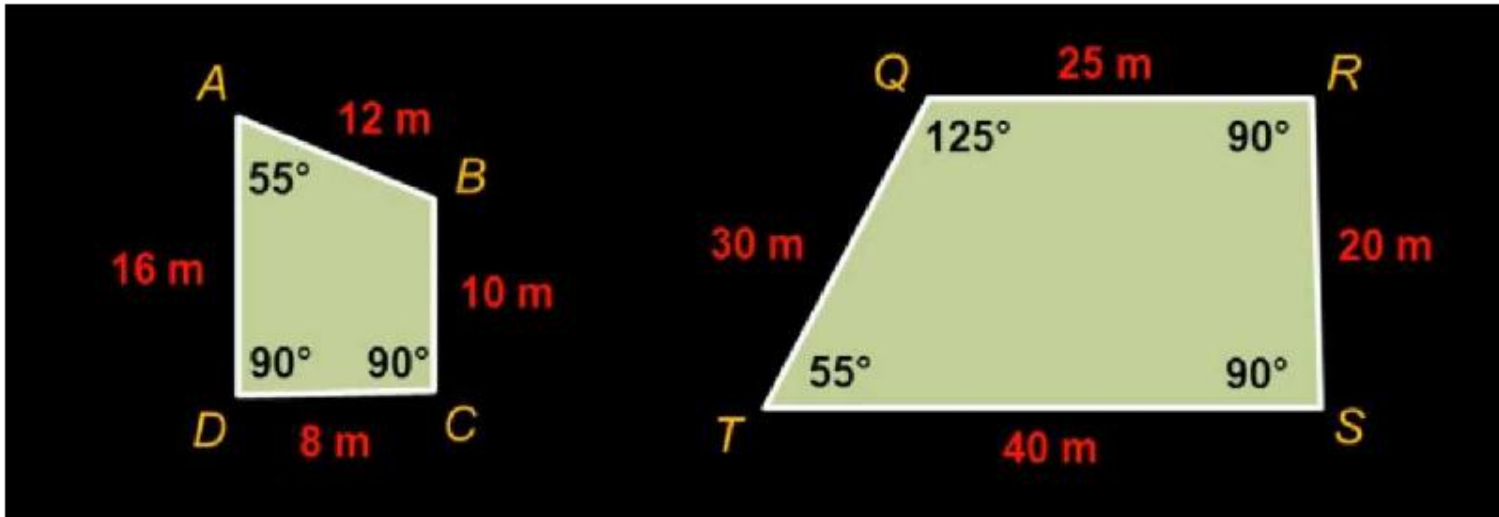
Which sides are corresponding? Set up the scale factors (ratios) Must show the geometry AND the number ratios:

Are the triangles similar? Why or why not?



Show the sides are proportional, but these figures are not similar because

Example 2



< _____ corresponds to < _____ and both are _____

< _____ corresponds to < _____ and both are _____

< _____ corresponds to < _____ and both are _____

< _____ corresponds to < _____ and both are _____

Set up ratios for corresponding sides- Must show the geometry AND the number ratios!:

Are the two figures similar? Why or why not?
