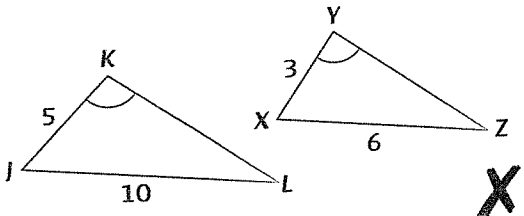
Do You UNDERSTAND?

1. ESSENTIAL QUESTION How can you use the angles and sides of two triangles to determine whether they are similar?

2. Error Analysis Allie says $\triangle JKL \sim \triangle XYZ$. What is Allie's error? MP.3

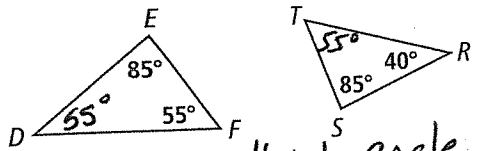


X

$\Delta JKL \sim \Delta XYZ$ by the SAS ~ Theorem.

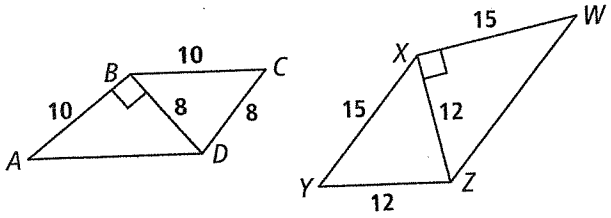
For SAS the angle has to be in the middle between the Two sides.

3. Make Sense and Persevere Is any additional information needed to show $\triangle DEF \sim \triangle RST$? Explain. MP.1



Finding the third angle using Triangle angle Sum to show at least 2 angles are Congruent (AA)

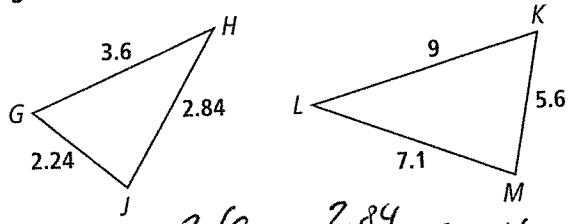
4. Construct Arguments Explain how you can use triangle similarity to show that $ABCD \sim WXYZ$.



Do You KNOW HOW?

For Exercises 5 and 6, explain whether the two triangles are similar.

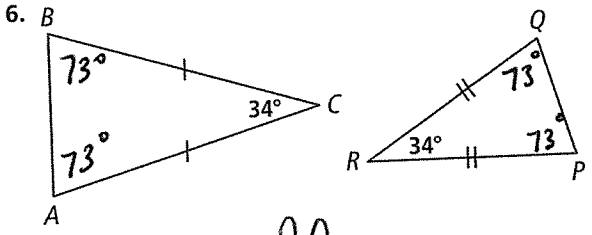
5.



$\frac{2.24}{5.6} = \frac{3.6}{9} = \frac{2.84}{9.1} \approx 0.4$

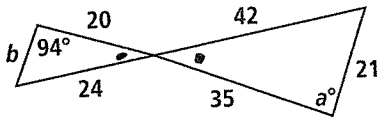
yes, by SSS

6.



yes, by AA

For Exercises 7 and 8, find the value of each variable such that the triangles are similar.



7. a

94°

8. b

$\frac{b}{21} = \frac{20}{35}$

$b = 12$

9. When Esteban looks at the puddle, he sees a reflection of the top of a cactus. How tall is the cactus?