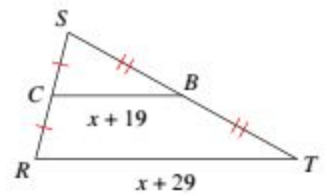


Unit 4B Triangle Similarity Review

Name: \_\_\_\_\_

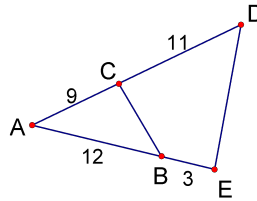
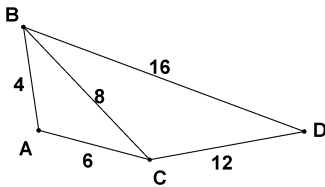


Honors Math 2

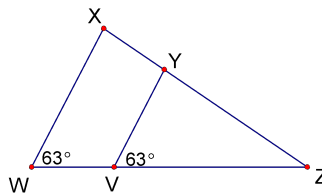
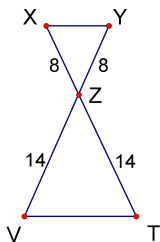
I can identify similar triangles and write similarity statements

If the triangles in 1 – 3 can be proved similar, complete the similarity statement and tell which theorem or postulate you would use. If they cannot be proved similar then write “None.”

1.  $\triangle ABC \sim \triangle$  \_\_\_\_\_ by \_\_\_\_\_      2.  $\triangle ABC \sim \triangle$  \_\_\_\_\_ by \_\_\_\_\_



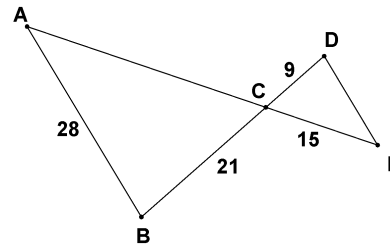
3.  $\triangle XYZ \sim \triangle$  \_\_\_\_\_ by \_\_\_\_\_      4.  $\triangle YVZ \sim \triangle$  \_\_\_\_\_ by \_\_\_\_\_



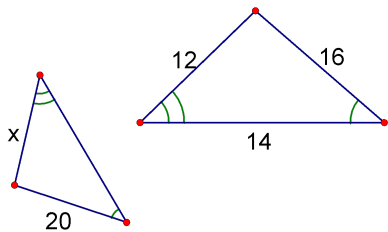
I can use what I know about similarity to find missing side lengths and variables.

5.  $\triangle BAC \sim \triangle DEC$  (Use the image to the right).

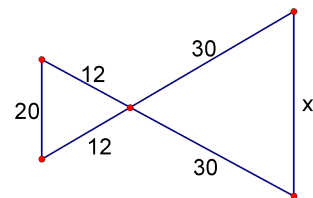
- What is the scale factor of  $\triangle BAC$  to  $\triangle DEC$ ? (leave in reduced fraction form): \_\_\_\_\_
- Find AC. \_\_\_\_\_
- Find DE. \_\_\_\_\_



6.  $x =$  \_\_\_\_\_



7.  $x =$  \_\_\_\_\_



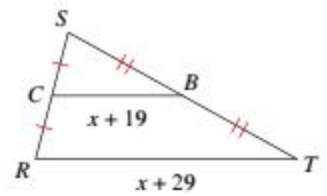
I can define the midsegment and use it to solve for side lengths or variables.

8. Midsegment of a Triangle:

- The midsegment of a triangle joins the \_\_\_\_\_ of two sides of a triangle.
- The midsegment is \_\_\_\_\_ to the third side and is \_\_\_\_\_ the length of the third side.
- Corresponding angles in the two similar triangles created by a midsegment are \_\_\_\_\_.

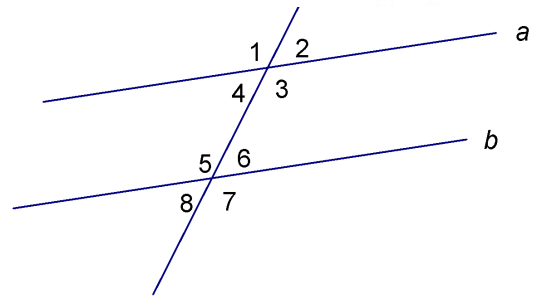
d. Use the image on the right to solve for  $x$ .

I can identify angle relationships within a transversal and use them to solve problems.



Use the diagram to answer 13 - 14.

9. If  $m\angle 3 = (2x + 24)^\circ$  and  $m\angle 6 = (6x + 20)^\circ$ , find  $m\angle 8$ .



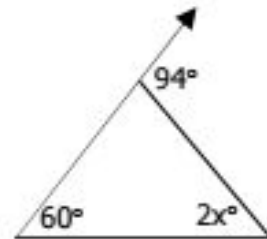
10. What kinds of angles in a transversal are congruent?  
What kinds are supplementary?

Exterior Angle Theorem

11. Solve for  $x$ .  $x =$  \_\_\_\_\_



12. Solve for  $x$ .  $x =$  \_\_\_\_\_

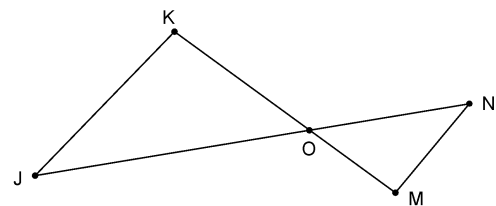


I can prove triangle similarity and use triangle similarity to prove similar/congruent figures.

*\*Refer to the Triangle Similarity Proofs notes and homework for more examples.*

13. Given:  $\angle J \cong \angle N$

Prove:  $\frac{JO}{NO} = \frac{KO}{MO}$



14. Given:  $\angle CNH$  and  $\angle CAM$  are  $90^\circ$

Prove:  $\frac{AM}{NH} = \frac{CM}{CH}$

