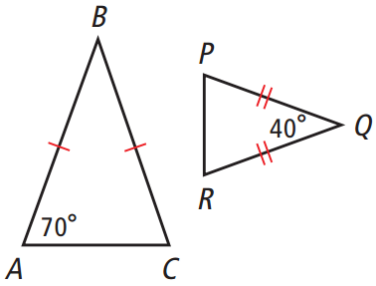
 *Name:* _____

# 6.2.D2 – Similar Triangle Theorems

*Past due on* _____ *Period* _____

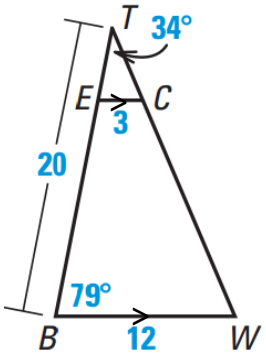
1. Explain why the triangles are similar and write a similarity statement.




2. In the diagram, △BTW ~ △ETC.

   a. Explain why the triangles are similar.

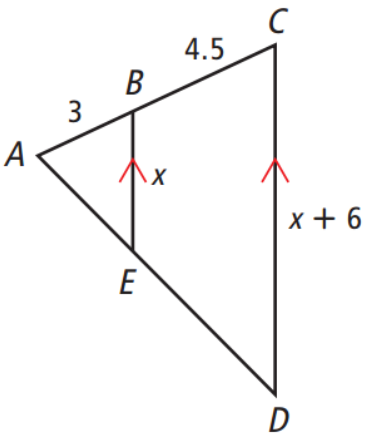
   b. Find ET and BE.




3. In the diagram, △ABE ~ △ACD

   a. Explain why the triangles are similar.

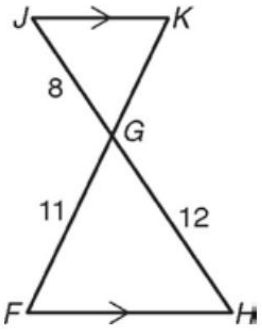
   b. Set up and solve a proportion to find x.



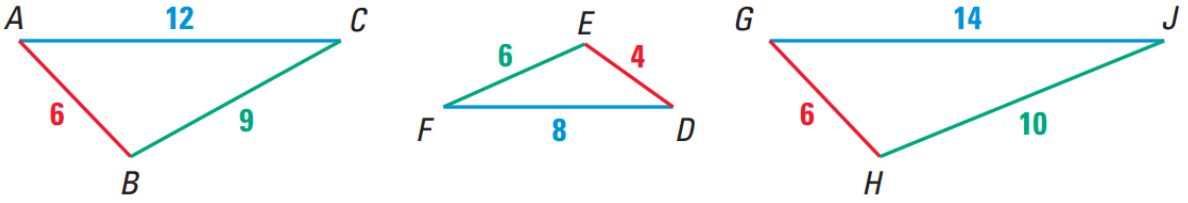

4. In the diagram, △JKG ~ △HFG.

   a. Explain why the triangles are similar.

   b. Set up and solve a proportion to find GK.

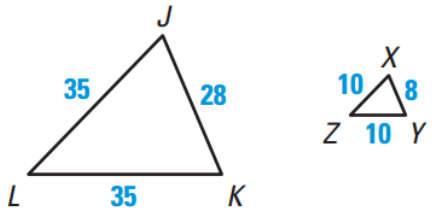


5. Which of the following three triangles are similar? Explain your reasoning.

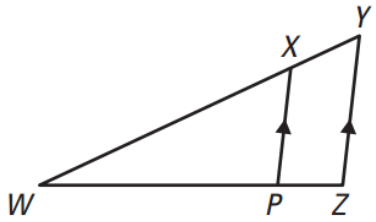



Are the triangles similar? Explain your reasoning. If they are similar, write a similarity statement and state the similarity postulate or theorem that justifies your answer.

6.




7.

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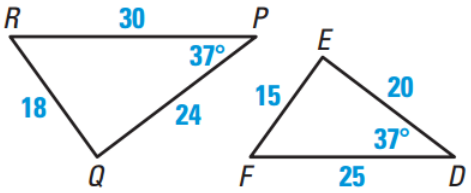
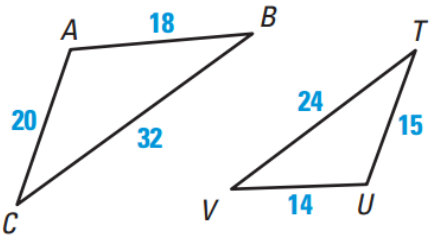


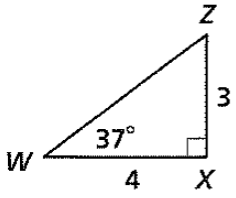

9.

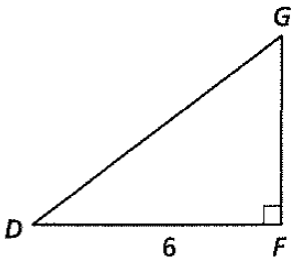



Problems 10 – 15: In the diagram, △WXZ ~ △DFG, where △WXZ is the pre-image. Find the following:

10. Scale factor

11. WZ (Hint: Use the Pythagorean Theorem)




12. m∠D

13. m∠G

14. GF (Set up and solve a proportion)

15. DG (Set up and solve a proportion)