Geometry R – Mr. Bo
Unit 8 – Day 2 HW

Name: _____
Date: _____

1. The shortest sides of two similar triangles are 4 and 12.
   a. What is the similarity ratio?
   b. What is the ratio of their perimeters?
   c. What is the ratio of their altitudes?
   d. What is the ratio of their areas?

2. The **perimeters** of 2 similar pentagons are in the ratio of 4:5.
   a. What is the ratio of their longest sides?
   b. What is the ratio of their areas?

3. The **areas** of 2 similar hexagons are in the ratio of 144:64.
   a. What is the similarity ratio?
   b. What is the ratio of their perimeters?

4. The lengths of the sides of a triangle are 4, 5, and 6. If the length of the longest side of a similar triangle is 15, what is the shortest side of this triangle?

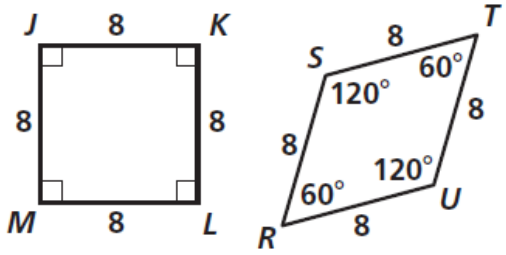
5. The longest sides of two similar triangles are 4 and 7. If the perimeter of one triangle is 36, find the perimeter of the other triangle.

6. Two similar triangles have areas 12 and 27. One side of the smaller triangle has length 6. Find the length of the corresponding side of the larger triangle.

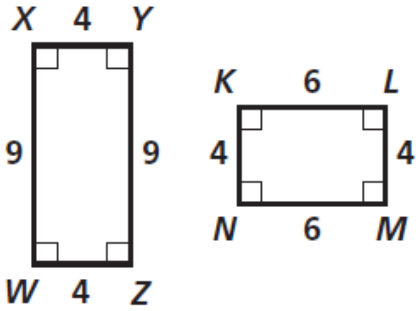
7. The lengths of corresponding sides of two similar pentagons is 4:7. If the area of the larger pentagon is 441, find the area of the smaller pentagon.

8. Are the polygons similar? If they are, give the similarity ratio. If they are not, explain.

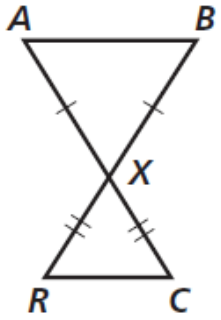
a.



b.

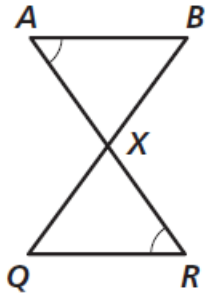


c. AX is three times CX.



9. Explain why the triangles are Similar and write a similarity statement.

a.



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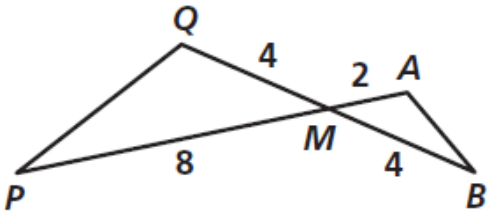

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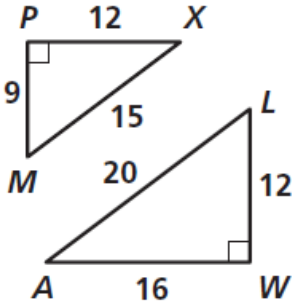
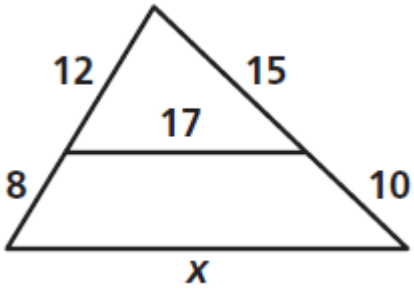
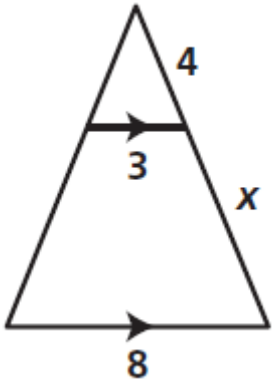


10. Identify the triangle similarity theorem that makes the triangles similar and solve for x.

a.



b.



c.