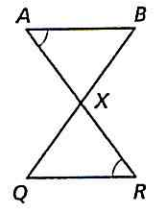
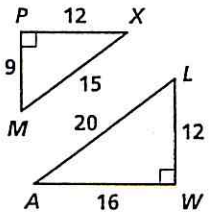
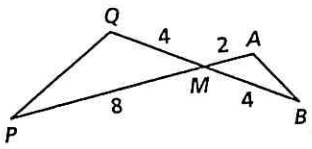
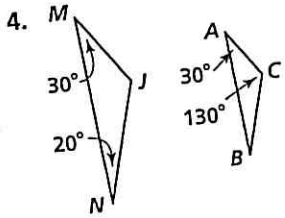
Practice 7-3

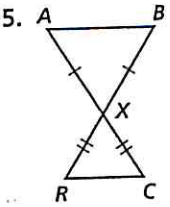
Explain why the triangles are similar. Write a similarity statement for each pair. SHOW ANY SIDE OR ANGLE WORK.

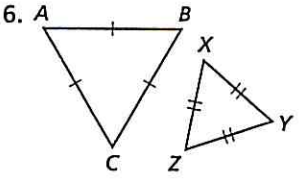
1. 

2. 

3. 

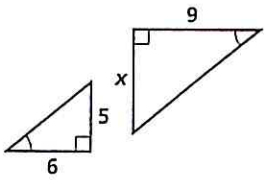
4. 

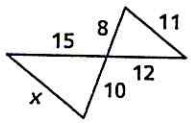
5. 

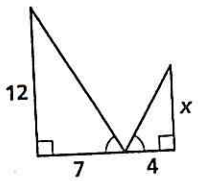
6. 

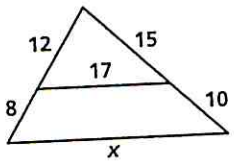
7–12: Using a proportion,

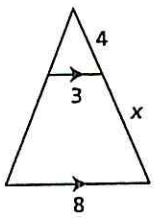
Algebra **Find the value of x.**

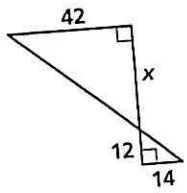
7. 

8. 

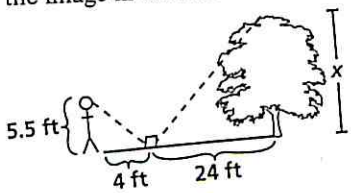
9. 

10. 

11. 

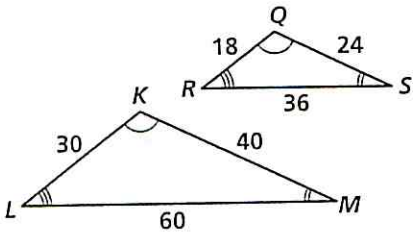
12. 

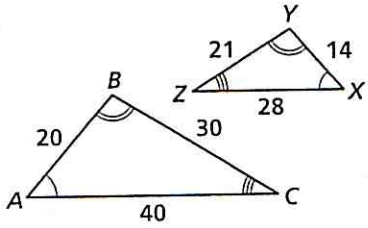
13. Natasha places a mirror on the ground 24 ft from the base of an oak tree. She walks backward until she can see the top of the tree in the middle of the mirror. At that point, Natasha's eyes are 5.5 ft above the ground, and her feet are 4 ft from the image in the mirror. Find the height of the oak tree.

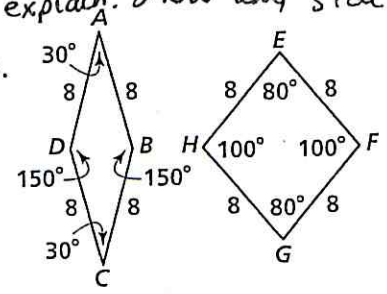


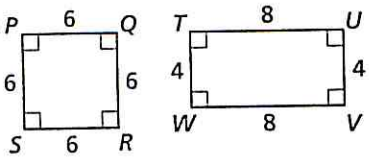
7-2

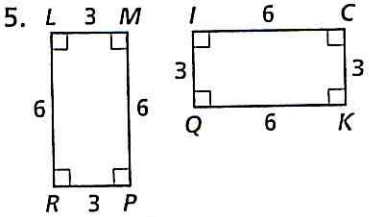
If the polygons are similar, write a similarity statement, and give the similarity ratio of the first figure to the second. If not, write *not similar*, and explain. Show any side ratio work.

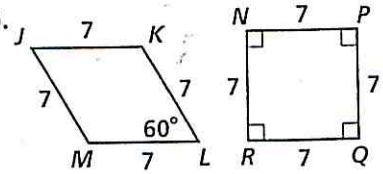
1. 

2. 

3. 

4. 

5. 

6. 

State whether the figures are similar. If so, give the similarity ratio.

7. a square with sides of length 10 and a square with sides of length 11

8. a rhombus with sides of length 4 containing a 30° angle and a rhombus with sides of length 4 containing a 40° angle

9. a rhombus with sides of length 4 containing a 50° angle and a rhombus with sides of length 9 containing a 130° angle