

Name _____

Date _____

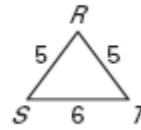
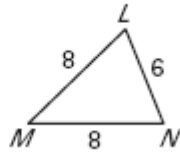
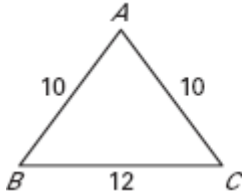
LESSON 6.5

Practice B

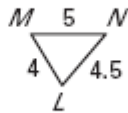
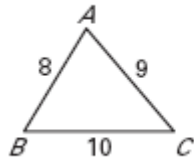
For use with pages 388–395

Is either $\triangle LMN$ or $\triangle RST$ similar to $\triangle ABC$?

1.

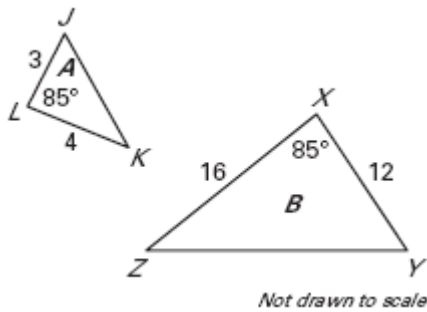


2.

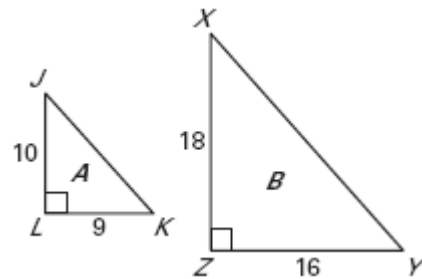


Determine whether the two triangles are similar. If they are similar, write a similarity statement and find the scale factor of $\triangle A$ to $\triangle B$.

3.

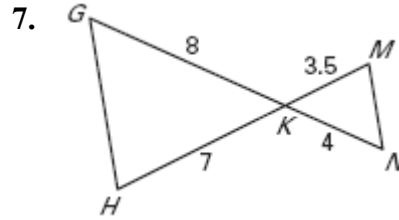
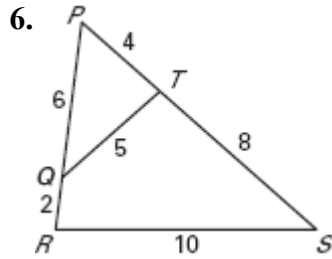


4.



5. **Algebra** Find the value of m that makes $\triangle ABC \sim \triangle DEF$ when $AB = 3$, $BC = 4$, $DE = 2m$, $EF = m + 5$, and $\angle B \cong \angle E$.

Show that the triangles are similar and write a similarity statement. *Explain* your reasoning.



Sketch the triangles using the given description. *Explain* whether the two triangles can be similar.

8. The side lengths of $\triangle ABC$ are 8, 10 and 14.
The side lengths of $\triangle DEF$ are 16, 20 and 26.

9. In $\triangle ABC$, $AB = 15$, $BC = 24$ and $m\angle B = 38^\circ$.
In $\triangle DEF$, $DE = 5$, $EF = 8$ and $m\angle E = 38^\circ$.

In Exercises 10-13, use the diagram at the right to copy and complete the statement.

10. $\triangle ABC \sim$ _____

11. $m\angle DCE =$ _____

12. $AB =$ _____

13. $m\angle CAB + m\angle ABC =$ _____

