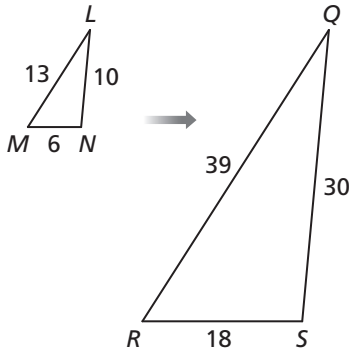


# 8.1

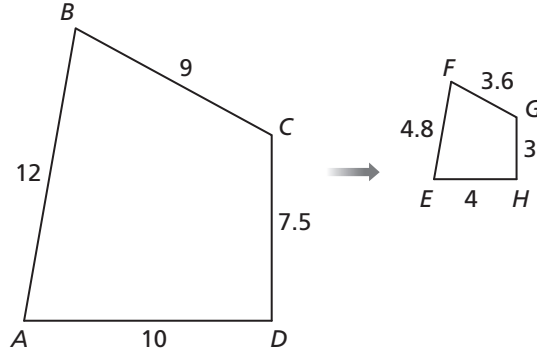
## Practice A

In Exercises 1 and 2, find the scale factor. Then list all pairs of congruent angles and write the ratios of the corresponding side lengths in a statement of proportionality.

1.  $\triangle LMN \sim \triangle QRS$

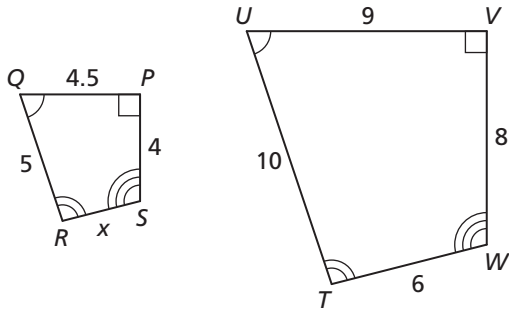


2.  $ABCD \sim EFGH$

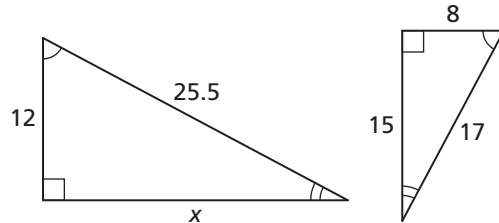


In Exercises 3 and 4, the polygons are similar. Find the value of  $x$ .

3.

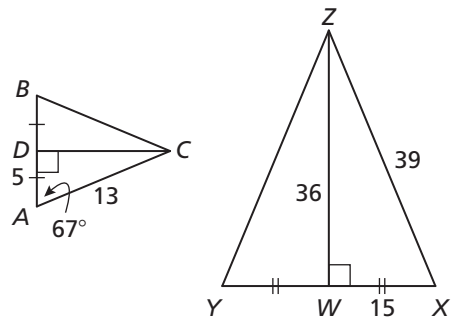


4.



In Exercises 5–11,  $\triangle ABC \sim \triangle XYZ$ .

5. Find the scale factor of  $\triangle ABC$  to  $\triangle XYZ$ .
6. Find  $m\angle X$ .
7. Find  $CD$ .
8. Find the area of  $\triangle ABC$ . Then find the area of  $\triangle XYZ$ .
9. Find the ratio of the area of  $\triangle ABC$  to the area of  $\triangle XYZ$ .
10. Find  $BC$  and  $YZ$ . Explain your reasoning.
11. Find the ratio of the perimeter of  $\triangle ABC$  to the perimeter of  $\triangle XYZ$ .



12. You are building a roof on a garage such that the gable of the house is similar to the gable of the garage as shown in the diagram. The area of the gable on the house is 3024 square feet. Find the area of the gable on the garage.

