## **Additional Practice**

Name

Investigation **3** 

Stretching and Shrinking

- **1. a.** On grid paper, make a right triangle with legs of length 8 and 12.
  - **b.** Give the leg lengths of two smaller right triangles that are similar to the one you drew and that have whole-number side lengths.
  - **c.** Copies of each smaller triangle can be put together to exactly match the original triangle. How many of each smaller triangle does it take to match the original?
- **2.** On centimeter-grid paper, make an isosceles triangle with base and height both equal to 6 centimeters.
  - **a.** Can isosceles triangles with base and height equal to 2 centimeters be put together to exactly match the shape of the original triangle? Is each smaller triangle similar to the original?
  - **b.** Can isosceles triangles with base and height equal to 4 centimeters be put together to exactly match the shape of the original triangle? Is each smaller triangle similar to the original?
  - **c.** Can copies of the triangle below be put together to exactly match the shape of your original isosceles triangle? Is this triangle similar to the original?



**3.** Find the missing values in each pair of similar figures below.



Name	Date	Class
Additional Practice (continued)		Investigation <b>3</b>
••••••	•••••	Stretching and Shrinking
<b>4. a.</b> The drawing below shows how a square foo	t and a square yard co	mpare.

How many square feet are in a square yard? Explain your reasoning.



- **b.** Are a square foot and a square yard similar? If so, what is the scale factor from a square foot to a square yard? What is the scale factor from a square yard to a square foot?
- **c.** Compare a square inch with a square foot. What is the scale factor from a square inch to a square foot?
- **d.** How many square inches are in a square foot? Explain.
- **e.** Compare a square inch with a square yard. What is the scale factor from a square inch to a square yard?
- f. How many square inches are in a square yard?
- 5. For each pair of figures below, give the scale factor from figure A to figure B.





