

Name \_\_\_\_\_

# 5-10A Lesson Master

Questions on SPUR Objectives

See pages 320–323 for objectives.

## USES Objective J

- An artist used one and a half black chalks to draw a self portrait. He then made a larger portrait that was exactly same as the first one in everything but size. He used four chalks for the larger portrait. What was the ratio of similitude between the two drawings? \_\_\_\_\_
- A student made an exact replica of the Washington Monument that was 1.5 feet tall. On a trip to the capital, the student put his replica next to the monument. The replica cast a shadow that was 1 foot long. The Washington Monument's height is about  $555\frac{1}{2}$  feet tall. How long was its shadow? \_\_\_\_\_

## REPRESENTATIONS Objective L

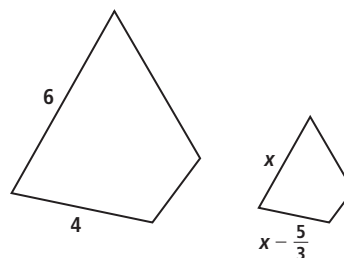
- The two figures pictured at the right are similar.

a. Solve for  $x$ .

\_\_\_\_\_

b. What is the ratio of similitude of the larger figure to the smaller one?

\_\_\_\_\_



- A triangle has sides 8 inches, 15 inches, and 17 inches long. Find the perimeter of a similar triangle whose smallest side is 12 inches long. \_\_\_\_\_
- One triangle has sides with lengths 6 centimeters, 8 centimeters, and 10 centimeters. A second triangle has sides with length 8 centimeters, 10 centimeters, and 12 centimeters. Are the two triangles similar? Explain your answer.  
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- Pentagons *SMILE* and *FROWN* are similar with a ratio of similitude  $\frac{2}{5}$ . If *SMILE* has a perimeter of 50, find the perimeter of *FROWN*. \_\_\_\_\_

