

**Practice**

For use with pages 417-422

**The scale of a drawing is 4 cm : 15 m. Find the unknown measure.**

1. length on drawing = 8 cm

length of object = \_\_\_\_\_

2. width of object = 60 m

width on drawing = \_\_\_\_\_

**In Exercises 3-5, use the following information. A cooking class is making gingerbread houses similar to real-life houses. To do this, they are using the scale 1 ft : 8 ft.**

3. If the actual house is 24 feet tall, how tall will the gingerbread house be?

4. An actual sidewalk is 3 feet wide. How big would the gingerbread's sidewalk be? A graham cracker is 3 inches wide. Is this the right size?

5. You want to paint windows on your gingerbread house with icing. An actual window is 3 feet wide and 4 feet high. What size should the window you paint in icing be?

**In Exercises 6-9, use the following information. A scale commonly used for model trains is the O scale. The O scale is 1 ft : 48 ft.**

6. If an actual refrigerator car is 48 feet long, how long would the O scale model of that car be?

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7. The ice blocks that were used to cool the contents of a refrigerator car were about 2 feet by 2 feet by 3 feet. What dimensions would an O scale model ice block have?
  
8. An O scale model man is  $1\frac{1}{2}$  inches tall. What size man would that represent in real life?
  
9. The O scale man turns a hand brake wheel on the end of the refrigerator car that is  $\frac{1}{2}$  inch in diameter. What is the diameter of the wheel on the actual refrigerator car?

**In Exercises 10–13, use the following information. A rectangle is 10 centimeters wide and 16 centimeters long.**

10. Use a metric ruler to draw the rectangle.
  
11. Use the scale 1 cm : 2 cm to draw a reduced rectangle. Describe your method.
  
12. Find the perimeter and area of the original and the reduced rectangles.
  
13. Set up the ratios:  $\frac{\text{reduced perimeter}}{\text{original perimeter}}$  and  $\frac{\text{reduced area}}{\text{original area}}$ .  
Explain how these ratios are related to the scale.