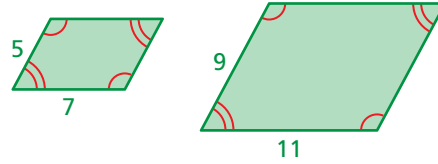
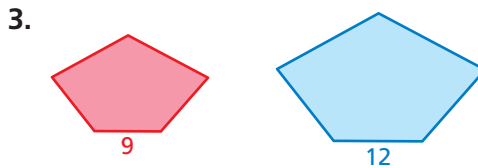


# 5 Chapter Test

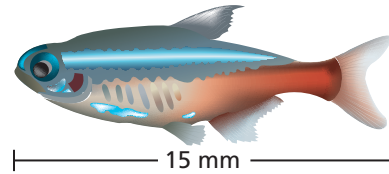
1. Tell whether the parallelograms are similar. Explain your reasoning.



The two figures are similar. Find the ratios (red to blue) of the perimeters and of the areas.



4. Use a centimeter ruler to measure the fish. Find the scale factor of the drawing.



5. The vertices of a triangle are  $A(2, 4)$ ,  $B(2, 1)$ , and  $C(5, 1)$ . Draw the triangle and its image after a translation of 1 unit left and 3 units down.

6. Find the coordinates of the triangle whose vertices are  $A(2, 5)$ ,  $B(1, 2)$ , and  $C(3, 1)$  after reflecting in (a) the  $x$ -axis and (b) the  $y$ -axis.

The vertices of a triangle are  $D(-2, -2)$ ,  $E(-1, 1)$ , and  $F(1, -1)$ . Rotate the triangle as described. Find the coordinates of the image.

7.  $180^\circ$  counterclockwise about the origin    8.  $90^\circ$  clockwise about the vertex  $D$

9. **SCREENS** A wide screen television measures 36 inches by 54 inches. A movie theater screen measures 42 feet by 63 feet. Are the screens similar? Explain.

10. **HOCKEY** An air hockey table and an ice hockey rink are similar. The ratio of their corresponding side lengths is 1 inch : 2 feet. What is the ratio of their areas?

11. **HEIGHT** You are five feet tall and cast a seven-foot eight-inch shadow. At the same time, a basketball hoop casts a 19-foot shadow. How tall is the basketball hoop? Assume the triangles are similar.

