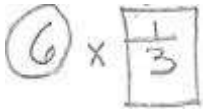
Name _____ Date _____

1. Solve for the unknown. Rewrite each phrase as a multiplication sentence. Circle the scaling factor and put a box around the number of meters.

   a. $\frac{1}{3}$ as long as 6 meters = _____ meters

   b. 6 times as long as $\frac{1}{3}$ meter = **2** meters



2. Draw a tape diagram to model each situation in Problem 1, and describe what happened to the number of meters when it was multiplied by the scaling factor.

   a.

   b.

3. Fill in the blank with a numerator or denominator to make the number sentence true.

   a. $5 \times \frac{\_}{3} > 5$

   b. $\frac{6}{\_} \times 12 < 12$

   c. $4 \times \frac{\_}{5} = 4$

4. Look at the inequalities in each box. Choose a single fraction to write in all three blanks that would make all three number sentences true. Explain how you know.

   a.

$\frac{2}{3} \times \_\_\_\_ > \frac{2}{3}$	$4 \times \_\_\_\_ > 4$	$\frac{5}{3} \times \_\_\_\_ > \frac{5}{3}$

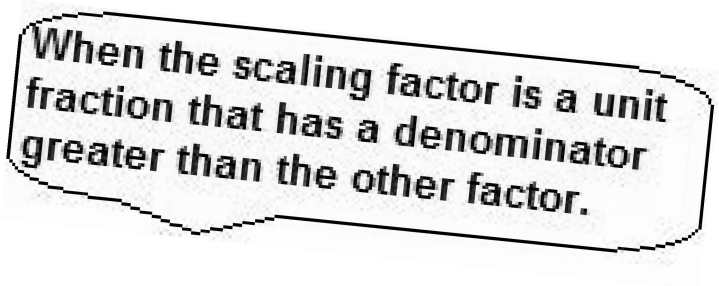
   b.

$\frac{2}{3} \times \_\_\_\_ < \frac{2}{3}$	$4 \times \_\_\_\_ < 4$	$\frac{5}{3} \times \_\_\_\_ < \frac{5}{3}$

5. Write a number in the blank that will make the number sentence true.

   a. 3 × _____ < 1

   b. Explain how multiplying by a whole number can result in a product less than 1.



6. In a sketch, a fountain is drawn $\frac{1}{4}$ yard tall. The actual fountain will be 68 times as tall. How tall will the fountain be?

7. In blueprints, an architect's firm drew everything $\frac{1}{24}$ of the actual size. The windows will actually measure 4 ft by 6 ft and doors measure 12 ft by 8 ft. What are the dimensions of the windows and the doors in the drawing?