Scale Drawings, Similarity, and Slope: Mid-Unit Review
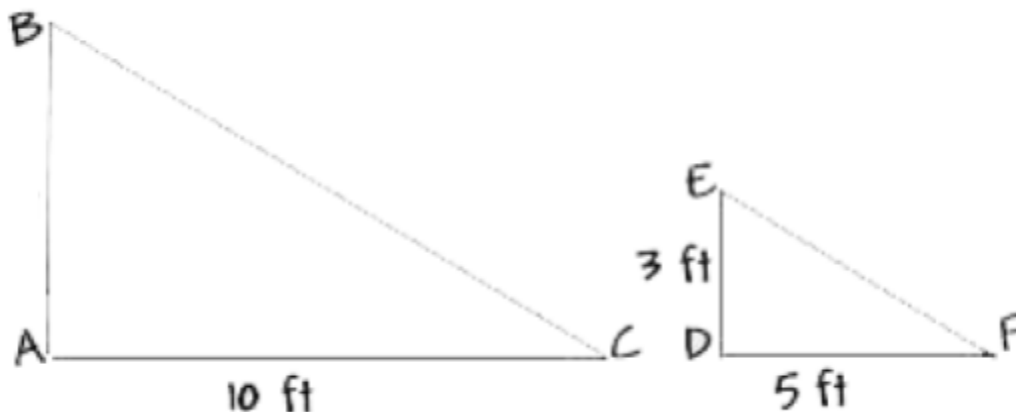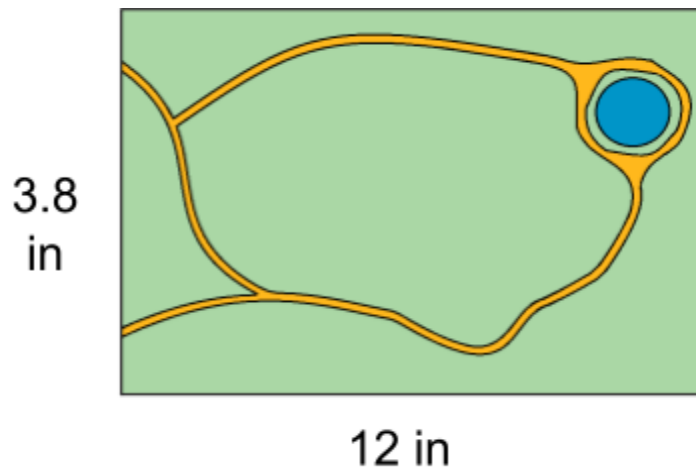
1. Triangle ABC is a scaled copy of Triangle DEF. Select **all** of the true statements.
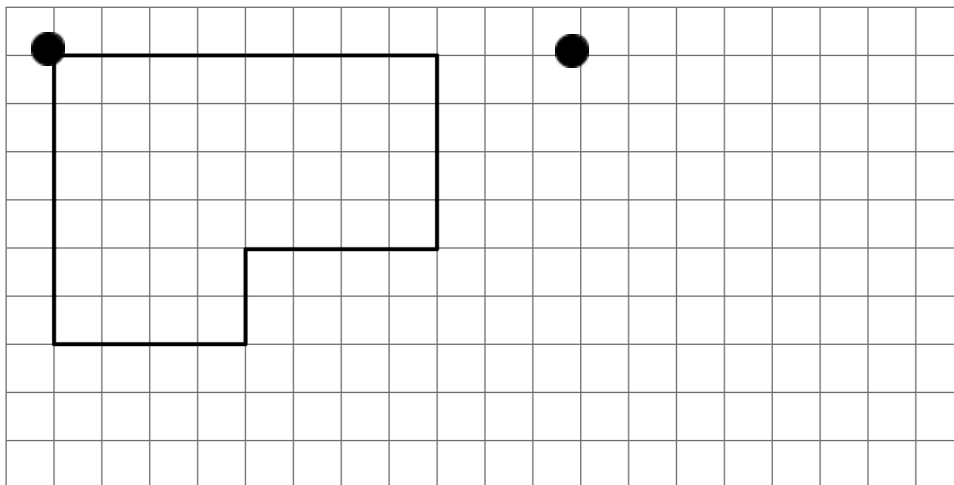

    a. Segment EF is twice as long as segment BC.

    b. Segment AC is twice as long as segment DF.

    c. The measure of angle ABC is twice the measure of angle DEF.

    d. The length of segment AB is 6 ft.

    e. The area of ABC is twice the area of DEF.

2. Rectangle A measures 7 inches by 8 inches. Rectangle B is a scaled copy of Rectangle A. Select **ALL** of the measurement pairs that could be the dimensions of Rectangle B.

    a. 3.5 inches by 4 inches

    b. 8 inches by 9 inches

    c. 8.75 inches by 10 inches

    d. 12.5 inches by 13.5 inches

    e. 70 inches by 80 inches

3. A scale drawing of a rectangular park is 12 inches wide and 3.8 inches long. The actual park is 240 yards wide. What is the area of the actual park, in square yards? **Show your work.**

3.8 in

12 in

   a. 45.6

   b. 18,240

   c. 912

   d. 76

4. Here is a polygon. Draw a scaled copy of the polygon using a scale factor of $\frac{3}{4}$.

5. The scale of a map says that 9 cm represents 11 km.

    a. What distance on the map (in centimeters) represents an actual distance of 6 kilometers? (Round your answer to the nearest tenth)

    b. What is the actual number of kilometers that is represented by 5 centimeters on the map?

6. There are two different maps of Pennsylvania.

- The scale on the first map is 1 cm to 12 km. The distance from Reading to Pittsburgh is 35 cm.
- The scale on the second map is 1 cm to 48 km.

What is the distance from Reading to Pittsburgh on the second map? Explain your reasoning.

7. Frank wants to make a scale drawing of his living room. His living room is a rectangle with a length of 800 cm and a width of 600 cm. He uses a scale of 1 to 40.

    a. Draw and label the dimensions of a scale drawing of Frank's living room, using a scale of 1 to 40.

    b. Frank's sofa is 140 cm wide. How wide should the sofa be on the scale drawing? Explain your answer.

    c. Frank's coffee table measures 2 cm by 1 cm on the scale drawing. What are the actual measurements of his table?