

## Lesson 11 Practice Problems

1. A scale drawing of a car is presented in the following three scales. Order the scale drawings from smallest to largest. Explain your reasoning. (There are about 1.1 yards in a meter, and 2.54 cm in an inch.)
  - a. 1 in to 1 ft
  - b. 1 in to 1 m
  - c. 1 in to 1 yd
  
2. Which scales are equivalent to 1 inch to 1 foot? Select **all** that apply.
  - A. 1 to 12
  - B.  $\frac{1}{12}$  to 1
  - C. 100 to 0.12
  - D. 5 to 60
  - E. 36 to 3
  - F. 9 to 108
  
3. A model airplane is built at a scale of 1 to 72. If the model plane is 8 inches long, how many feet long is the actual airplane?

4. Quadrilateral A has side lengths 3, 6, 6, and 9. Quadrilateral B is a scaled copy of A with a shortest side length equal to 2. Jada says, "Since the side lengths go down by 1 in this scaling, the perimeter goes down by 4 in total." Do you agree with Jada? Explain your reasoning.

(From Unit 1, Lesson 3.)

5. Polygon B is a scaled copy of Polygon A using a scale factor of 5. Polygon A's area is what fraction of Polygon B's area?

(From Unit 1, Lesson 6.)

6. Figures R, S, and T are all scaled copies of one another. Figure S is a scaled copy of R using a scale factor of 3. Figure T is a scaled copy of S using a scale factor of 2. Find the scale factors for each of the following:
- From T to S
  - From S to R
  - From R to T
  - From T to R

(From Unit 1, Lesson 5.)