## Unit 1, Lesson 11: Scales without Units

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:
a. From T to S
b. From S to R
c. From R to T
d. From T to R
(from Unit 1, Lesson 5)
