2-8 Standardized Test Prep

Proportions and Similar Figures
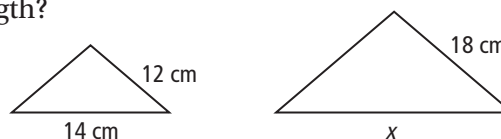
Multiple Choice

For Exercises 1–4, choose the correct letter.

1. The distance between Capeton and Jonesville is 80 miles. The scale on the map is 0.75 in. : 10 miles. How far apart are the cities on the map?
   A. 6 in.   **B.** 60 in.   **C.** 600 in.   **D.** 1067 in.

2. The floor plan of a room has a scale of 2.5 in.: 35 ft. In the drawing, the length of the room is 8 in. and the width of the room is 6 in. What is the perimeter of the actual room?
   F. 84 ft   **G.** 112 ft   **H.** 196 ft   **I.** 392 ft

3. The figures are similar. What is the missing length?
   A. 9.33 cm
   B. 5.4 cm
   C. 6 cm
   D. 21 cm

4. A model car is constructed with a scale of 1 : 15. If the actual car is 12 feet long, which proportion represents the length x of the model car?
   F. $\frac{1}{15} = \frac{x}{12}$ **G.** $\frac{1}{15} = \frac{12}{x}$ **H.** $\frac{12}{15} = \frac{1}{x}$ **I.** $\frac{1}{12} = \frac{15}{x}$

Short Response

5. The scale of a map is 0.5 in. : 25 mi. The actual distance between two cities is 725 mi. Write a proportion that represents the relationship. How far apart will the cities be on the map?