

Unit 2: Scale Drawings, Similarity, and Slope

PRACTICE

Name: _____ Date: _____

Solve each problem and write your exact answer (a number, fraction, or coordinate pair) on the line. Show no work — just the final answer.

1. A polygon has a side that is 8 cm long. In a scaled copy, the corresponding side is 20 cm long. What is the scale factor from the original to the copy? Give your answer as a fraction.

Answer: _____

3. A figure is scaled by a factor of 3 to make a copy. The original figure has an area of 15 square cm. What is the area of the scaled copy, in square cm?

Answer: _____

5. A map uses the scale 1 inch represents 15 feet. An actual path is 75 feet long. How long is the path on the map, in inches?

Answer: _____

7. The point $(-3, 2)$ is dilated using the origin as the center and a scale factor of 5. What are the coordinates of the image point? Give your answer as an ordered pair.

Answer: _____

9. Two triangles are similar. A pair of corresponding sides measures 4 and 10. A side of the smaller triangle measures 6. What is the length of the corresponding side of the larger triangle?

Answer: _____

2. A triangle has a side of length 7 in. You make a scaled copy using a scale factor of 6. How long is the corresponding side in the copy, in inches?

Answer: _____

4. On a scale drawing, 1 cm represents 4 m. A wall measures 6.5 cm on the drawing. What is the actual length of the wall, in meters?

Answer: _____

6. The point $(9, -12)$ is dilated using the origin as the center and a scale factor of $\frac{1}{3}$. What are the coordinates of the image point? Give your answer as an ordered pair.

Answer: _____

8. Triangle ABC is similar to triangle DEF. Side AB = 10 corresponds to side DE = 15. Side BC = 6 corresponds to side EF. What is the length of EF?

Answer: _____

10. A line passes through the points $(1, 2)$ and $(5, 14)$. What is the slope of the line?

Answer: _____

11. A line passes through the points $(-2, 7)$ and $(4, -5)$. What is the slope of the line?

Answer: _____

12. A line passes through the origin and the point $(6, 4)$. What is the value of y on this line when $x = 15$?

Answer: _____