

Worksheet 8-4 Scale & Scale Factor

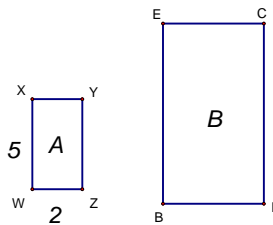
Unit 8

In the figure below, the scale factor from A to B is 3.

1. Find the length of side BD.

2. Find the length of EB.

3. Find the scale factor from B to A.



Find the scale for the following:

4. Find model : actual. A house that has a living room with length 16 feet and the blueprint of the same living room has a length of 4 centimeters.

5. Find actual : model. A person who is 69 inches tall and whose bobblehead is 7 inches tall.

Answer the following questions.

6. The scale of a map is 3 inches : 100 miles. Two cities are 7.5 inches apart on the map. Find the actual distance between the cities.

8. The scale of a map is $\frac{1}{2}$ inch : 24 miles .

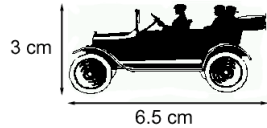
What is the actual mileage between two cities that are 3 inches apart on the map?

7. A drawing has a scale of 5 cm : 3 m to the actual figure. Find the drawing measurement if the length of the actual figure is 15 meters.

9. On a blueprint of a house, the living room is 1 inch long. The actual length of the living room is 24 feet. What is the scale of the blueprint?

10. In the same blueprint for #9, where the living room is 1 inch long and the actual length of the living room is 24 feet, a hallway on the blueprint is $\frac{1}{4}$ inch wide. Find the actual width of the hallway.

11. The picture shown is a scale drawing of a collector car. The scale is 1 cm : 72 centimeters. How long is the actual full-sized car?



12. A model airplane with a scale of 1 inch : 20 feet is 12 inches long. How long is the actual plane?

13. A house is 36 feet wide. On a scaled drawing, how wide would the house be if the scale is 1 inch : 4 feet?

14. A photo is 8 inches tall. Find the height of the resulting photo if the photo is enlarged by a scale factor of 3.

15. Using the map to the below, 1 centimeter : 4 kilometers. If the actual distance between two cities is 12 kilometers, how many centimeters will separate those two cities on this map?



1. 6

2. 15

3. $\frac{1}{3}$

4. 1 cm : 4 ft

5. 69 in : 7 in

6. 250 mi

7. 25 cm

8. 144 mi

9. 1 in : 24 ft

10. 6 ft

11. 468 cm

12. 240 ft

13. 9 in

14. 24 in

15. 3 cm