

**Answer each question and round your answer to the nearest whole number.**

- 11) Santa Cruz and Johnstown are 84 mi from each other. How far apart would the cities be on a map that has a scale of 1 in : 14 mi?
- 12) A map has a scale of 1 in : 16 mi. If Santa Cruz and Brisbane are 64 mi apart then they are how far apart on the map?
- 13) A map has a scale of 1 cm : 12 km. If Greenwood and Rivertown are 9 cm apart on the map then how far apart are the real cities?
- 14) A model house is 6 in tall. If it was built with a scale of 1 in : 3 ft then how tall is the real house?
- 15) A particular giraffe is 16 ft tall. A model of it was built with a scale of 1 in : 8 ft. How tall is the model?
- 16) A particular train is 12 ft tall. A model of it was built with a scale of 1 in : 4 ft. How tall is the model?
- 17) A 6 ft tall man standing next to a ladder casts a 3 ft shadow. If the ladder casts a shadow that is 7 ft long then how tall is it?
- 18) If a 3 ft tall car casts a 9 ft long shadow then how tall is a woman that casts a 18 ft shadow?

19) A statue that is 15 ft tall casts a shadow that is 5 ft long. Find the length of the shadow that a 18 ft adult giraffe casts.

20) If a 8 ft tall baby giraffe casts a 4 ft long shadow then how long is the shadow that a 18 ft tall statue casts?

21) Franklin and Clayton are 50 km from each other. How far apart would the cities be on a map that has a scale of 1 cm : 10 km?

22) Find the distance between Rivertown and Yorkshire on a map with a scale of 1 cm : 8 km if they are actually 72 km apart.

23) Rivertown and Abbots Rise are 2 in apart on a map that has a scale of 1 in : 7 mi. How far apart are the real cities?

24) Find the distance between Kumba and Midway if they are 5 in apart on a map with a scale of 1 in : 5 mi.

25) A model motorcycle has a scale of 1 in : 5 ft. If the real motorcycle is 10 ft long then how long is the model motorcycle?

26. Two triangles are similar. One has sides of 8 m, 5 m, and 6 m. If the longest side of the second triangle is 5 m, what are the lengths of the other two sides?

27. A pentagon has interior angles of  $108^\circ$ ,  $204^\circ$ ,  $63^\circ$ ,  $120^\circ$ , and  $45^\circ$ . Rudy wants to draw a similar pentagon with sides twice as long as the original. What size will the angles be?

28. Marie-Claude has a series of four nested funnels in her kitchen that are similar to the one shown in the diagram. If the other three funnels have top diameters of 10 cm, 8 cm, and 6 cm, find the measures of the remaining parts for all three funnels.

a) Funnel Height:

1.

2.

3.

b) Stem Height:

1.

2.

3.

