Basic Pre-algebra Skill

Solving Proportion Word Problems Involving Similar Figures

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

1) If a 6 ft tall tent casts a 10 ft long shadow then how long is the shadow that a 9 ft tall adult elephant casts?

2) A model plane has a scale of 1 in : 6 yd. If the model plane is 3 in tall then how tall is the real plane?

3) A particular motorcycle is 9 ft long. A model of it was built with a scale of 1 in : 3 ft. How long is the model?

4) A particular satellite is 15 m wide. A model of it was built with a scale of 1 cm : 5 m. How wide is the model?

5) A model train is 7 in tall. If it was built with a scale of 1 in : 2 ft then how tall is the real train?

6) Find the distance between Riverside and Victoria if they are 9 cm apart on a map with a scale of 1 cm : 18 km.

7) Milton and San Jose are 9 in apart on a map that has a scale of 1 in : 13 mi. How far apart are the real cities?

8) A 15 ft tall statue standing next to an adult elephant casts a 18 ft shadow. If the adult elephant is 10 ft tall then how long is its shadow?

9) Find the distance between Fairview and Riverside if they are 4 in apart on a map with a scale of 1 in : 3 mi.

10) A globe that is 3 ft tall casts a shadow that is 7 ft long. Find the length of the shadow that a 6 ft woman casts.

11) A 6 ft tall man standing next to a tree casts a 8 ft shadow. If the tree is 15 ft tall then how long is its shadow?

12) A 8 ft tall telephone booth standing next to an adult giraffe casts a 4 ft shadow. If the adult giraffe is 14 ft tall then how long is its shadow?

13) If a 3 ft tall car casts a 5 ft long shadow then how long is the shadow that a 9 ft tall adult elephant casts?

14) A particular giraffe is 12 ft tall. A model of it was built with a scale of 1 in : 2 ft. How tall is the model?

15) A 8 ft tall tent standing next to a bird bath casts a 18 ft shadow. If the bird bath is 4 ft tall then how long is its shadow?

16) If a 18 ft tall tree casts a 9 ft long shadow then how tall is an adult giraffe that casts a 7 ft shadow?

17) Find the distance between Mount Pleasant and Madison on a map with a scale of 1 cm : 14 km if they are actually 98 km apart.

18) If a 3 ft tall globe casts a 1 ft long shadow then how tall is an adult giraffe that casts a 6 ft shadow?

19) Fairview and Madison are 36 km from each other. How far apart would the cities be on a map that has a scale of 1 cm : 12 km?

20) Find the distance between San Jose and Mount Pleasant if they are 2 cm apart on a map with a scale of 1 cm : 9 km.

21) A model igloo has a scale of 1 in : 2 ft. If the real igloo is 10 ft wide then how wide is the model igloo?

22) Rivertown and Marion are 108 km from each other. How far apart would the cities be on a map that has a scale of 1 cm : 12 km?

23) A 2 ft tall globe standing next to a baby giraffe casts a 3 ft shadow. If the baby giraffe casts a shadow that is 12 ft long then how tall is it?

24) A model satellite has a scale of 1 cm : 2 m. If the real satellite is 12 m wide then how wide is the model satellite?

Answers to Solving Proportion Word Problems Involving Similar Figures

1) 15 ft
2) 18 yd
3) 3 in
4) 3 cm
5) 14 ft
6) 162 km
7) 117 mi
8) 12 ft
9) 12 mi
10) 14 ft
11) 20 ft
12) 7 ft
13) 15 ft
14) 6 in
15) 9 ft
16) 14 ft
17) 7 cm
18) 18 ft
19) 3 cm
20) 18 km
21) 5 in
22) 9 cm
23) 8 ft
24) 6 cm