



Similar figures - word problems

Answer each question and round your answer to the nearest tenth.

- 1) A model giraffe is 8 in tall. If it was built with a scale of 0.8 in : 1.7 ft then how tall is the real giraffe?
- 2) A model plane is 4 cm long. If it was built with a scale of 2.5 cm : 6.8 m then how long is the real plane?
- 3) A model power plant has a scale of 0.7 cm : 6.1 m. If the real power plant is 17.4 m tall then how tall is the model power plant?
- 4) A model house has a scale of 0.7 cm : 2.4 m. If the model house is 5 cm tall then how tall is the real house?
- 5) A baby giraffe that is 7.6 ft tall casts a shadow that is 36.5 ft long. Find the length of the shadow that a 5.2 ft lawn casts.
- 6) If a 2.5 ft tall lawn casts a 5.5 ft long shadow then how tall is a cardboard box that casts a 18 ft shadow?

- 7) If a 4.1 ft tall baby elephant casts a 5.7 ft long shadow then how long is the shadow that a 5.8 ft tall tent casts?
- 8) If a 2.7 ft tall bird bath casts a 8.4 ft long shadow then how long is the shadow that a 6.4 ft tall baby giraffe casts?
- 9) Milton and Sun Valley are 1.5 cm apart on a map that has a scale of 1.4 cm : 12.6 km. How far apart are the real cities?
- 10) A map has a scale of 1.5 cm : 6.7 km. If Clayton and Yorkshire are 2.1 cm apart on the map then how far apart are the real cities?
- 11) Clayton and Centerville are 27.8 mi from each other. How far apart would the cities be on a map that has a scale of 1.6 in : 15.9 mi?
- 12) A model train has a scale of 4.5 in : 11.3 ft. If the model train is 8 in tall then how tall is the real train?
- 13) A model rocket is 9 cm tall. If it was built with a scale of 1.5 cm : 2.8 m then how tall is the real rocket?
- 14) A model giraffe has a scale of 1.5 in : 3.8 ft. If the model giraffe is 4 in tall then how tall is the real giraffe?

- 15) A model car is 3 in long. If it was built with a scale of 4.5 in : 14.9 ft then how long is the real car?
- 16) If a 4.9 ft tall car casts a 6.9 ft long shadow then how long is the shadow that a 7.6 ft tall petrified stump casts?
- 17) A 6.1 ft tall baby giraffe standing next to a telephone booth casts a 21.3 ft shadow. If the telephone booth is 7.1 ft tall then how long is its shadow?
- 18) A statue that is 10.3 ft tall casts a shadow that is 38.1 ft long. Find the height of a tent that casts a 16.3 ft shadow.
- 19) If a 4.1 ft tall bird bath casts a 16 ft long shadow then how long is the shadow that a 5.1 ft tall woman casts?
- 20) Find the distance between Georgetown and Rockville if they are 3.8 in apart on a map with a scale of 0.6 in : 8.5 mi.
- 21) A map has a scale of 0.7 cm : 17.7 km. If Smithville and Mount Pleasant are 22.8 km apart then they are how far apart on the map?
- 22) Find the distance between Johnstown and Madison on a map with a scale of 0.8 in : 11.8 mi if they are actually 23.6 mi apart.

23) Johnstown and Kumba are 1.5 in apart on a map that has a scale of 1.7 in : 8.6 mi. How far apart are the real cities?

24) A model car has a scale of 0.8 in : 5 ft. If the model car is 3 in long then how long is the real car?

25) A model car is 3 in long. If it was built with a scale of 1 in : 3.7 ft then how long is the real car?

26) A model power plant has a scale of 2.5 in : 11.8 yd. If the real power plant is 14.2 yd tall then how tall is the model power plant?

27) A 3.2 ft tall car standing next to a statue casts a 18.9 ft shadow. If the statue casts a shadow that is 57.2 ft long then how tall is it?

28) A 13.4 ft tall statue standing next to a car casts a 50.9 ft shadow. If the car casts a shadow that is 19.8 ft long then how tall is it?

29) A 2.5 ft tall lawn standing next to a baby giraffe casts a 3.8 ft shadow. If the baby giraffe is 4.5 ft tall then how long is its shadow?

30) A 2.5 ft tall lawn standing next to a statue casts a 13 ft shadow. If the statue is 17.5 ft tall then how long is its shadow?

Answers to Similar figures - word problems

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|-------------|-------------|-------------|-------------|
| 1) 17 ft | 2) 10.9 m | 3) 2 cm | 4) 17.1 m |
| 5) 25 ft | 6) 8.2 ft | 7) 8.1 ft | 8) 19.8 ft |
| 9) 13.5 km | 10) 9.4 km | 11) 2.8 in | 12) 20.1 ft |
| 13) 16.8 m | 14) 10.1 ft | 15) 9.9 ft | 16) 10.6 ft |
| 17) 24.8 ft | 18) 4.4 ft | 19) 19.9 ft | 20) 53.8 mi |
| 21) 0.9 cm | 22) 1.6 in | 23) 7.6 mi | 24) 18.8 ft |
| 25) 11.1 ft | 26) 3 in | 27) 9.7 ft | 28) 5.2 ft |
| 29) 6.8 ft | 30) 91 ft | | |