



Similar figures - word problems

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

- 1) A particular car is 18 ft long. A model of it was built with a scale of 4 in : 3 ft. How long is the model?
- 2) A man that is 6 ft tall casts a shadow that is 3 ft long. Find the height of a cardboard box that casts a 2 ft shadow.
- 3) If a 6 ft tall lawn casts a 12 ft long shadow then how long is the shadow that a 10 ft tall statue casts?
- 4) A baby elephant that is 4 ft tall casts a shadow that is 8 ft long. Find the height of a petrified stump that casts a 12 ft shadow.
- 5) A man that is 6 ft tall casts a shadow that is 18 ft long. Find the length of the shadow that a 3 ft car casts.
- 6) Abbots Rise and Fairview are 72 mi from each other. How far apart would the cities be on a map that has a scale of 1 in : 12 mi?

- 7) Find the distance between Brisbane and Centerville if they are 9 cm apart on a map with a scale of 3 cm : 11 km.
- 8) A map has a scale of 2 cm : 19 km. If Clinton and Brisbane are 76 km apart then they are how far apart on the map?
- 9) Clinton and Smithville are 48 mi from each other. How far apart would the cities be on a map that has a scale of 1 in : 8 mi?
- 10) A model satellite has a scale of 3 cm : 10 m. If the model satellite is 6 cm wide then how wide is the real satellite?
- 11) A particular house is 12 m wide. A model of it was built with a scale of 4 cm : 2 m. How wide is the model?
- 12) A model train has a scale of 2 in : 4 ft. If the model train is 6 in tall then how tall is the real train?
- 13) A 16 ft tall adult giraffe standing next to a baby giraffe casts a 8 ft shadow. If the baby giraffe is 6 ft tall then how long is its shadow?
- 14) An adult giraffe that is 15 ft tall casts a shadow that is 6 ft long. Find the height of a petrified stump that casts a 2 ft shadow.

- 15) A telephone booth that is 9 ft tall casts a shadow that is 3 ft long. Find the height of a bird bath that casts a 1 ft shadow.
- 16) A man that is 5 ft tall casts a shadow that is 4 ft long. Find the length of the shadow that a 15 ft adult giraffe casts.
- 17) Greenwood and Salem are 10 km from each other. How far apart would the cities be on a map that has a scale of 5 cm : 5 km?
- 18) A map has a scale of 2 in : 19 mi. If Mount Pleasant and Madison are 38 mi apart then they are how far apart on the map?
- 19) Sun Valley and Johnstown are 10 cm apart on a map that has a scale of 2 cm : 11 km. How far apart are the real cities?
- 20) A map has a scale of 5 cm : 19 km. If Sun Valley and Rivertown are 38 km apart then they are how far apart on the map?
- 21) A model submarine is 12 cm long. If it was built with a scale of 4 cm : 5 m then how long is the real submarine?
- 22) A particular rocket is 14 ft tall. A model of it was built with a scale of 5 in : 7 ft. How tall is the model?

- 23) A model igloo is 15 in wide. If it was built with a scale of 5 in : 4 ft then how wide is the real igloo?
- 24) A model train has a scale of 4 in : 3 ft. If the real train is 9 ft tall then how tall is the model train?
- 25) A baby giraffe that is 6 ft tall casts a shadow that is 15 ft long. Find the height of a bird bath that casts a 10 ft shadow.
- 26) A 6 ft tall woman standing next to a bird bath casts a 18 ft shadow. If the bird bath casts a shadow that is 12 ft long then how tall is it?
- 27) If a 5 ft tall baby giraffe casts a 10 ft long shadow then how long is the shadow that a 10 ft tall adult elephant casts?
- 28) A map has a scale of 1 cm : 15 km. If Clinton and Santa Cruz are 9 cm apart on the map then how far apart are the real cities?
- 29) A map has a scale of 2 in : 20 mi. If Midway and Riverside are 4 in apart on the map then how far apart are the real cities?
- 30) Find the distance between Fairview and Abbots Rise on a map with a scale of 3 cm : 20 km if they are actually 60 km apart.

Answers to Similar figures - word problems

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| 1) 24 in | 2) 4 ft | 3) 20 ft | 4) 6 ft |
| 5) 9 ft | 6) 6 in | 7) 33 km | 8) 8 cm |
| 9) 6 in | 10) 20 m | 11) 24 cm | 12) 12 ft |
| 13) 3 ft | 14) 5 ft | 15) 3 ft | 16) 12 ft |
| 17) 10 cm | 18) 4 in | 19) 55 km | 20) 10 cm |
| 21) 15 m | 22) 10 in | 23) 12 ft | 24) 12 in |
| 25) 4 ft | 26) 4 ft | 27) 20 ft | 28) 135 km |
| 29) 40 mi | 30) 9 cm | | |