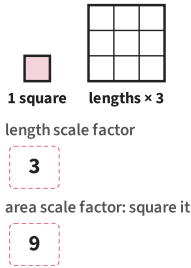


Area and Volume Scale Factors



1

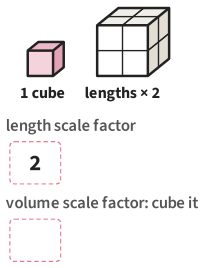
Two similar shapes have lengths 4 cm and 12 cm. The small area is 5 cm². Find the large area.



Answer _____

2

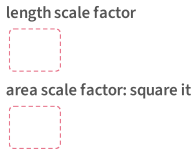
Two similar shapes have lengths 3 cm and 6 cm. The small volume is 10 cm³. Find the large volume.



Answer _____

3

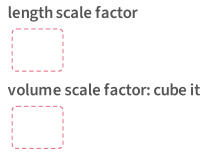
Two similar shapes have lengths 5 cm and 15 cm. The small area is 8 cm². Find the large area.



Answer _____

4

Two similar shapes have lengths 4 cm and 8 cm. The small volume is 7 cm³. Find the large volume.



Answer _____

5

Two similar shapes have lengths 2 cm and 10 cm. The small area is 3 cm². Find the large area.



Answer _____

6

Two similar shapes have lengths 3 cm and 9 cm. The small volume is 2 cm³. Find the large volume.



Answer _____

7

Two similar shapes have areas 4 cm² and 36 cm². The small one is 5 cm long. How long is the large one?

Answer _____

8

Two similar shapes have volumes 2 cm³ and 54 cm³. The small one is 10 cm long. How long is the large one?

Answer _____

Area and Volume Scale Factors *further practice*



9

Two similar solids have lengths 4 cm and 10 cm. The volume of the large one is 375 cm³. Find the volume of the small one.

Answer _____

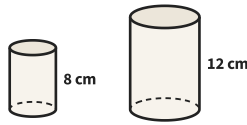
10

Two similar solids have surface areas 36 cm² and 81 cm². The volume of the small one is 40 cm³. Find the volume of the large one.

Answer _____

11

These two cylinders are similar. Write each ratio, small : large, in its simplest form.



Surface areas _____

Volumes _____

12

A model of a statue is made to a scale of 1 : 20. It takes 15 ml of paint to cover the model. How many litres of paint would cover the real statue?

Answer _____

13

Two glass jars are similar. The small jar holds 0.4 litres and is 12 cm tall. The large jar holds 1.35 litres. How tall is the large jar?

Answer _____

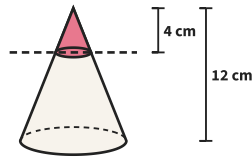
14

Two candles are similar. The small candle is 6 cm tall and costs £3.20. The large candle is 9 cm tall and costs £10. Which candle gives more wax for your money? Show how you know.

Answer _____

15

A cone 12 cm tall is cut parallel to its base. The small cone cut from the top is 4 cm tall and has a volume of 10 cm³. Find the volume of the piece that is left.



Answer _____

16

Solid B is similar to solid A. The surface area of B is 50% more than the surface area of A. Leo says the volume of B is also 50% more. Is he right? Explain.

Answer _____