

GCSE Maths Volume, Surface Area and 3D Shapes (Foundation): check-up and exam-style questions: worksheet

GCSE Maths - Volume, Surface Area and 3D Shapes - Foundation - Test yourself

Name: _____

Date: _____

Score: _____

19 questions. Write your answers in the spaces. Answers and step-by-step help are free at websink.site/gcse/maths/ch19-volume-surface-area-3d/foundation/check-up-and-exam-style-questions/

Exercise 19Z Check-up (non-calculator)

Non-calculator

- 1 A solid has 5 faces, 9 edges and 6 vertices. What is the solid?

Answer: _____

- 2 Work out the volume of a cuboid that is 6 cm long, 5 cm wide and 4 cm high.

Answer: _____

- 3 The net of a cylinder has circles of radius 5 cm. Write the width of the rectangle in the net in terms of π .

Answer: _____

- 4 Work out the total surface area of a cuboid that is 5 cm by 3 cm by 2 cm.

Answer: _____

- 5 Change 2.5 litres to cm^3 .

Answer: _____

- 6 A triangular prism has a triangle of base 8 cm and height 3 cm, and is 10 cm long. Work out its volume.

Answer: _____

- 7 Work out the volume of a cylinder with radius 2 cm and height 5 cm. Give your answer in terms of π .

Answer: _____

- 8 Work out the total surface area of a cylinder with radius 3 cm and height 4 cm. Give your answer in terms of π .

Answer: _____

- 9 A metal block has mass 600 g and volume 200 cm^3 . Work out its density.

Answer: _____

- 10 Write down the shape of the front elevation of a cone that stands on its circular base.

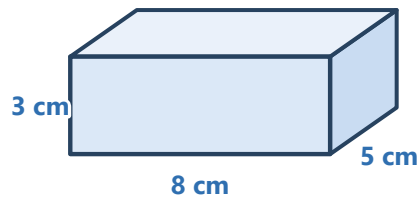
Answer: _____

Exercise 19X Exam-style questions

Non-calculator

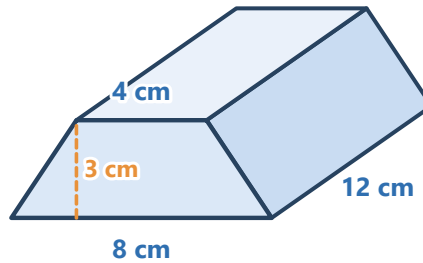
- 1 Work out the total surface area of this cuboid.

[3 marks]



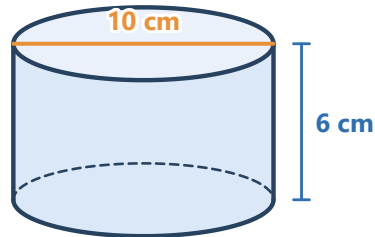
Answer:

- 2** The diagram shows a prism. Its cross-section is a trapezium. Work out the volume of the prism. [3 marks]



Answer:

- 3** A cylinder has diameter 10 cm and height 6 cm. Work out its volume. Give your answer correct to 3 significant figures. [3 marks]

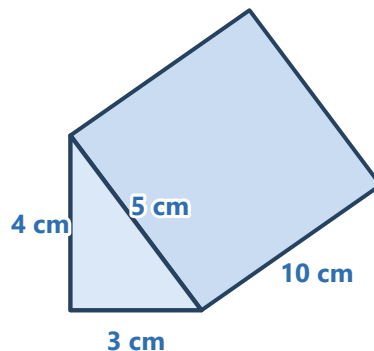


Answer:

- 4** A tank is a cuboid 60 cm long, 30 cm wide and 40 cm high. How many litres of water can it hold? [3 marks]

Answer:

- 5** The diagram shows a triangular prism. The triangle is right-angled. Work out the total surface area of the prism. [4 marks]

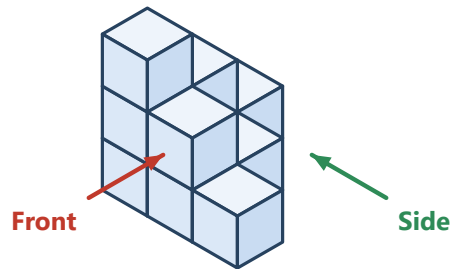


Answer:

- 6** A block of metal is a cuboid 10 cm by 5 cm by 4 cm. Its mass is 1.6 kg. Work out the density of the metal in g/cm^3 . [3 marks]

Answer:

- 7** The solid is made from 1 cm cubes. Draw the front elevation of the solid on squared paper. [3 marks]

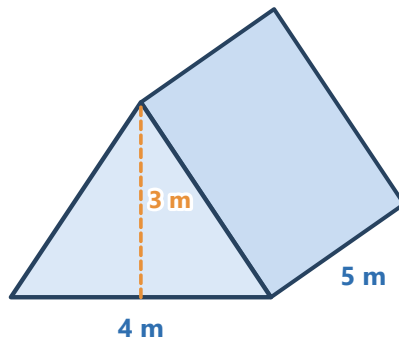


Answer:

- 8** An open cylinder (no lid) has radius 6 cm and height 14 cm. Work out the outside surface area. Give your answer correct to 3 significant figures. [4 marks]

Answer:

- 9** A tent is a triangular prism. The triangular ends have base 4 m and height 3 m, and the tent is 5 m long. Each person needs 2.5 m^3 of air. How many people can sleep in the tent? [4 marks]



Answer: