

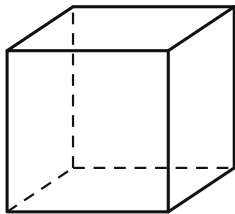
3D Shapes

ANSWERS

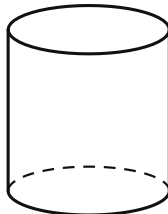
Calculator | 30 minutes | Total marks: 22

Name Class

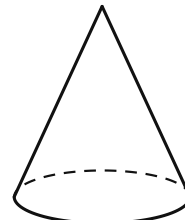
1 Here are three solids.



A



B



C

Write one name from the box next to each letter.

cone

cube

cylinder

sphere

A cube (1) B cylinder (1) C cone (1)

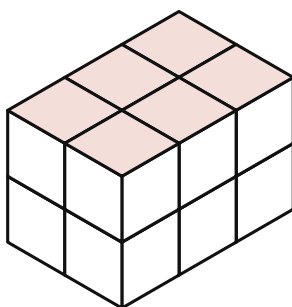
[3 marks]

2 Complete the table for a cuboid.

Faces	Edges	Vertices
6 (1)	12 (1)	8 (1)

[3 marks]

3 The solid is made from centimetre cubes.

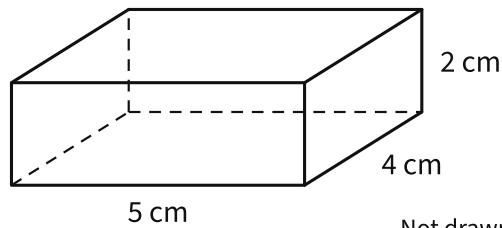


Work out the volume of the solid.

Answer 12 (1) cm³ [1 mark]

4

(a) Work out the volume of the cuboid.



$$5 \times 4 \times 2 \text{ (1)}$$

Answer 40 (1) cm³ [2 marks]

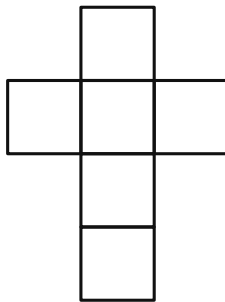
(b) A different cuboid is 10 cm long, 3 cm wide and 3 cm high.

Work out its volume.

$$10 \times 3 \times 3 \text{ (1)}$$

Answer 90 (1) cm³ [2 marks]

5



The diagram shows the net of a solid. All six faces are squares.

Write down the name of the solid.

Answer cube (1) [1 mark]

6

Volume of a prism = area of cross section $\times$ lengthA prism has a cross section with an area of 12 cm² and a length of 5 cm.

Work out the volume of the prism.

$$12 \times 5 \text{ (1)}$$

Answer 60 (1) cm³ [2 marks]

7

Volume of a cylinder = $\pi \times \text{radius}^2 \times \text{height}$

A cylinder has a radius of 2 cm and a height of 5 cm.

Work out the volume of the cylinder.

Give your answer to 1 decimal place.

$$\pi \times 2^2 \times 5 \text{ (1)}$$

Answer 62.8 (1) cm³ [2 marks]

8

A cube has sides of length 3 cm.

(a) Work out the area of one face.

Answer 9 (1) cm² [1 mark]

(b) Work out the total surface area of the cube.

$$6 \times 9 \text{ (1)}$$

Answer 54 (1) cm² [2 marks]

9

(a) A cylinder stands on its circular base. What shape is its plan view, from above?

Answer circle (1) [1 mark]

(b) What shape is the front elevation of a cuboid?

Answer rectangle (1) [1 mark]

10

1 litre = 1000 cm³

Change 3 litres into cm³

Answer 3000 (1) cm³ [1 mark]

Question	Topic	RAG
1	I know the names of 3D shapes	
2	I can count faces, edges and vertices	
3	I can find a volume by counting cubes	
4	I can find the volume of a cuboid	
5	I can recognise a solid from its net	
6	I can find the volume of a prism	
7	I can find the volume of a cylinder	
8	I can find the surface area of a cube	
9	I can describe plans and elevations	
10	I can convert litres to cm ³	