

# Volume and Surface Area of Cuboids



SCAN ME

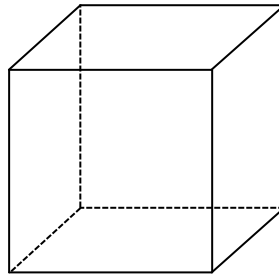


SCAN ME

REVISE THIS TOPIC

CHECK YOUR ANSWERS

1 Here is a cube.



Not drawn accurately

3 cm

1 (a) Work out the volume of the cube.

[2 marks]

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Answer \_\_\_\_\_  $\text{cm}^3$

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

[2 marks]

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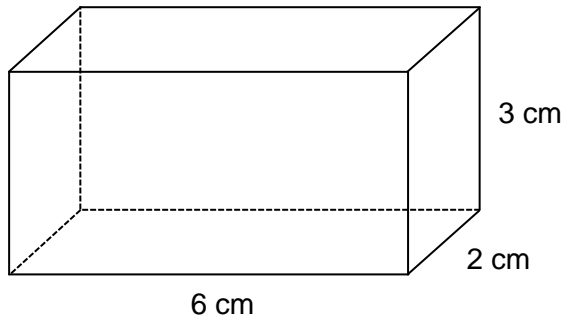
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Answer \_\_\_\_\_  $\text{cm}^2$





2 Here is a cuboid.



Not drawn accurately

2 (a) Work out the volume of the cuboid. [2 marks]

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Answer \_\_\_\_\_  $\text{cm}^3$

2 (b) Work out the surface area of the cuboid. [3 marks]

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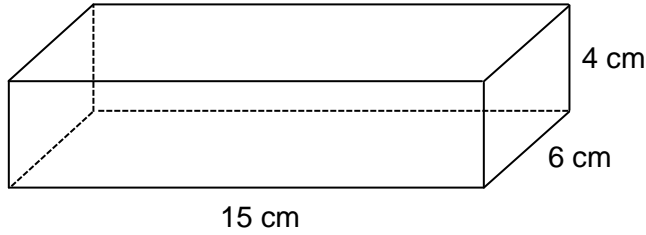
Answer \_\_\_\_\_  $\text{cm}^2$





3 Here is a cuboid.

Not drawn accurately



3 (a) Work out the volume of the cuboid.

[2 marks]

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Answer \_\_\_\_\_  $\text{cm}^3$

3 (b) Work out the surface area of the cuboid.

[3 marks]

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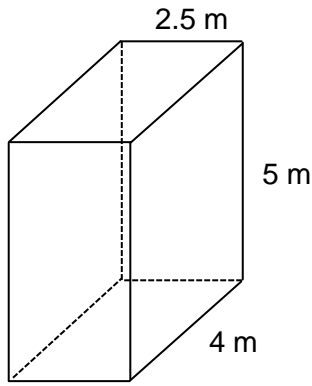
Answer \_\_\_\_\_  $\text{cm}^2$

Turn over ►





4 Here is a cuboid.



Not drawn accurately

4 (a) Work out the volume of the cuboid.

[2 marks]

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Answer \_\_\_\_\_  $m^3$

4 (b) Work out the surface area of the cuboid.

[3 marks]

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Answer \_\_\_\_\_  $m^2$

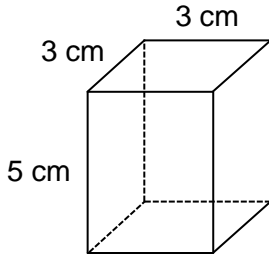




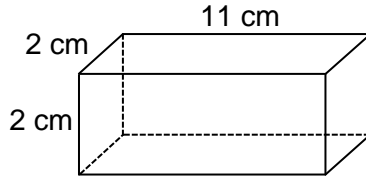
Not drawn accurately

5 Here are three cuboids.

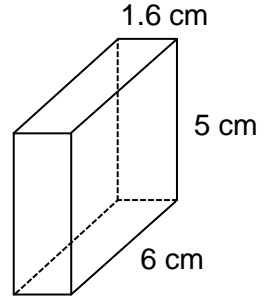
**Cuboid A**



**Cuboid B**



**Cuboid C**



Work out the cuboid that has the greatest volume.  
You must show your working.

[4 marks]

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Answer \_\_\_\_\_

$\frac{\quad}{9}$

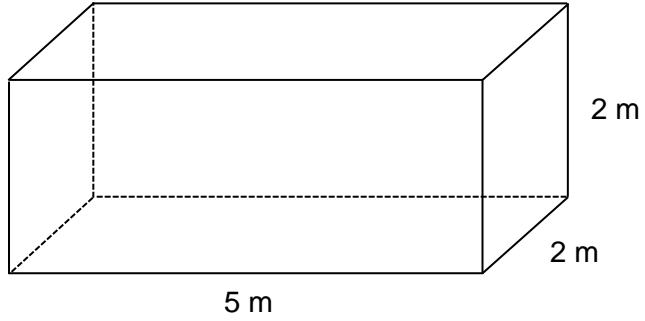
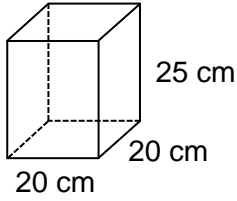
Turn over ►





6 Here is a small cuboid and a large cuboid.

Not drawn accurately



Work out how many of the smaller cuboids could fit into the larger cuboid.

[4 marks]

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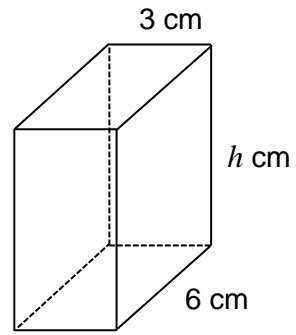
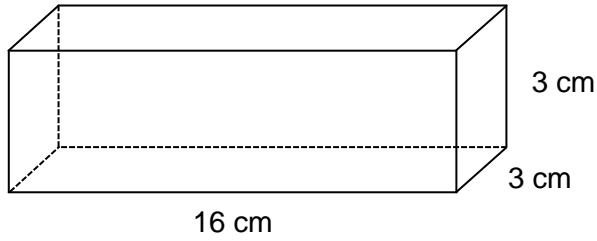
Answer \_\_\_\_\_





7 Here are two cuboids with the same volume.

Not drawn accurately



Work out the value of  $h$ .

[4 marks]

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$h =$  \_\_\_\_\_  $\text{cm}$



Turn over ►

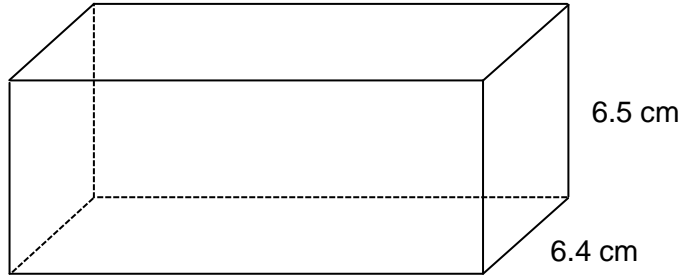




8

Here is a cuboid.

Not drawn accurately



The volume of the cuboid is  $624 \text{ cm}^3$

Work out the surface area of the cuboid.

[4 marks]

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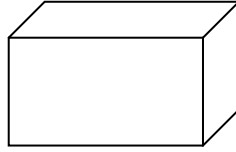
Answer \_\_\_\_\_  $\text{cm}^2$



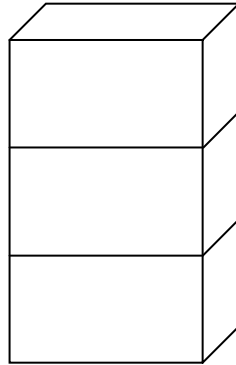




9 Here is a cuboid.



The identical copies of the cuboid are stacked together to make a larger cuboid.



For each statement below, tick one box.

[3 marks]

True

False

The height of the new cuboid is 3 times the height of the original cuboid.

The volume of the new cuboid is 3 times the volume of the original cuboid.

The surface area of the new cuboid is 3 times the surface area of the original cuboid.

$\frac{\quad}{7}$

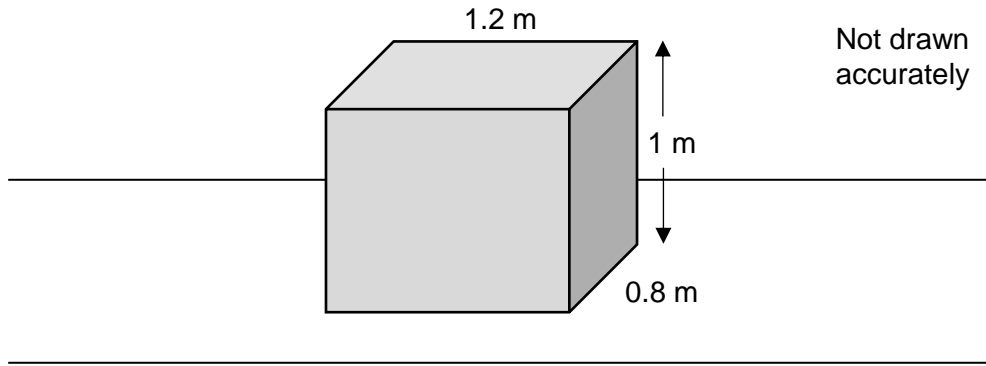
Turn over ►





10

A cuboid is placed onto a flat surface so that the bottom face is no longer visible.



The five visible faces of the cuboid are to be painted.  
Each tin of paint can cover an area of  $1 \text{ m}^2$  and costs £3.50

Work out how much it would cost to buy enough tins of paint to paint the five visible faces of the cuboid. **[5 marks]**

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Answer £ \_\_\_\_\_





11 A cube has a volume of  $1000 \text{ cm}^3$   
Work out the surface area of the cube. [3 marks]

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Answer \_\_\_\_\_  $\text{cm}^2$

12 A cube has a surface area of  $54 \text{ cm}^2$   
Work out the volume of the cube. [4 marks]

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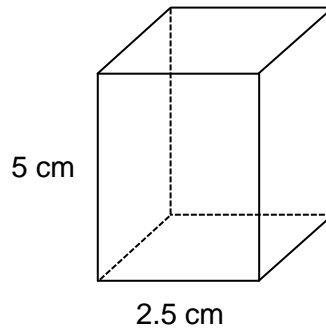
Answer \_\_\_\_\_  $\text{cm}^3$

Turn over ►





13 Here is a cuboid.



Not drawn accurately

The surface area of the cuboid is  $61 \text{ cm}^2$

Work out the volume of the cuboid.

[5 marks]

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Answer \_\_\_\_\_  $\text{cm}^3$

