

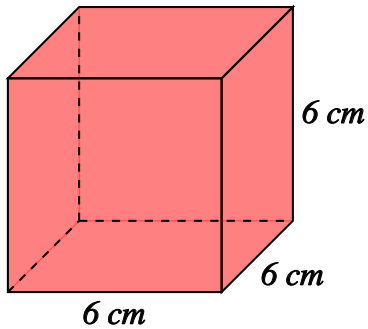
## Volume of 3D shapes - advanced

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

Mark / 12 %

1) Find the volume of the cube

[1]



2) A cuboid has a length, width and height of 4 cm, 5 cm and 9 cm, respectively. Find the volume of the cuboid.

[1]

3) Find the width of a cuboid, given that it has a length of 7 cm, height of 10 cm and volume of  $490 \text{ cm}^3$

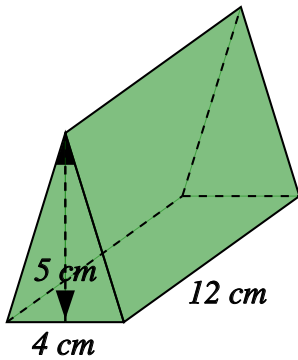
[1]

4) Find its length, given that the volume of a cube is  $343 \text{ cm}^3$

[1]

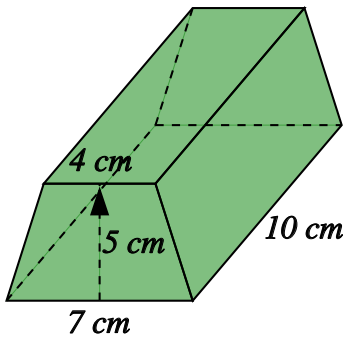
5) Find the volume of the triangular prism

[1]



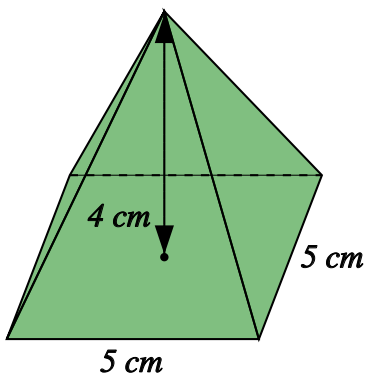
6) Find the volume of the trapezoidal prism

[1]



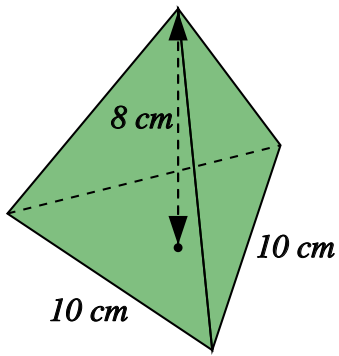
7) Find the volume of the square-based pyramid, rounding your answer to 3 significant figures

[1]



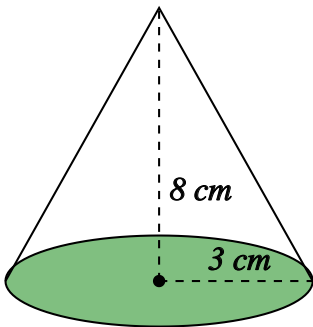
8) Find the volume of the tetrahedron, rounding your answer to 3 significant figures

[1]



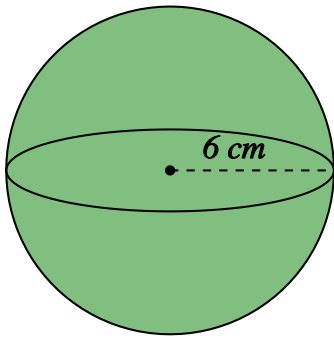
9) Find the volume of the cone, rounding your answer to 3 significant figures

[1]



10) Find the volume of the sphere, rounding your answer to 3 significant figures

[1]



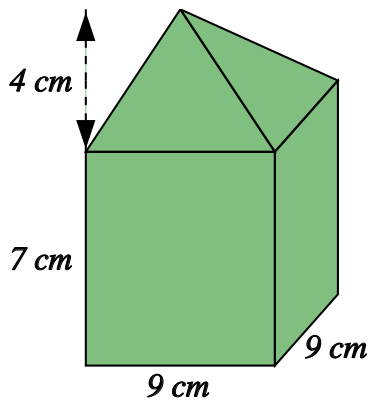
11) A hemisphere has a radius of 2 cm. Find its volume, rounding your answer to 3 significant figures. [1]

12) The solid shown below is a cuboid with a square-based pyramid on top.

[1]

The pyramid has a vertical height of 4 cm.

Find the volume of the solid, giving your answer to one decimal place where necessary.



**Solutions for the assessment Volume of 3D shapes - advanced**

1) Volume =  $216 \text{ cm}^3$

2) Volume =  $180 \text{ cm}^3$

3) width =  $7 \text{ cm}$

4) Length =  $7 \text{ cm}$

5) Volume =  $120 \text{ cm}^3$

6) Volume =  $275 \text{ cm}^3$

7) Volume =  $33.3 \text{ cm}^3$

8) Volume =  $115 \text{ cm}^3$

9) Volume =  $75.4 \text{ cm}^3$

10) Volume =  $905 \text{ cm}^3$

11) Volume =  $16.8 \text{ cm}^3$

12) Volume =  $675 \text{ cm}^3$