

Plans and Elevations

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **21**

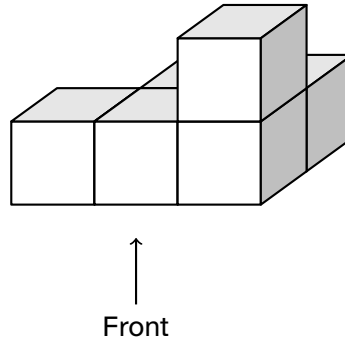
Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** The plan of a solid is a circle.
The front elevation and the side elevation are both rectangles.
Write down the name of the solid.

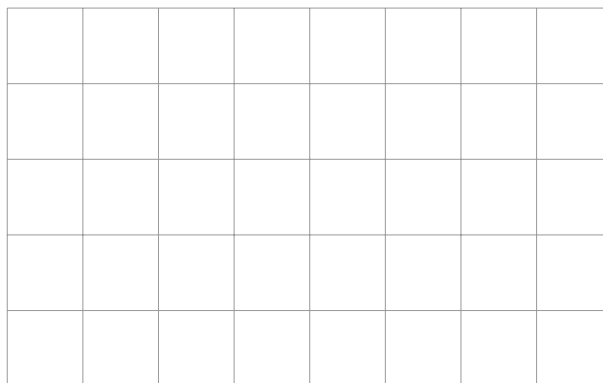
.....
(1)

(Total for Question 1 is 1 mark)

- 2 The diagram shows a solid shape made from six centimetre cubes.

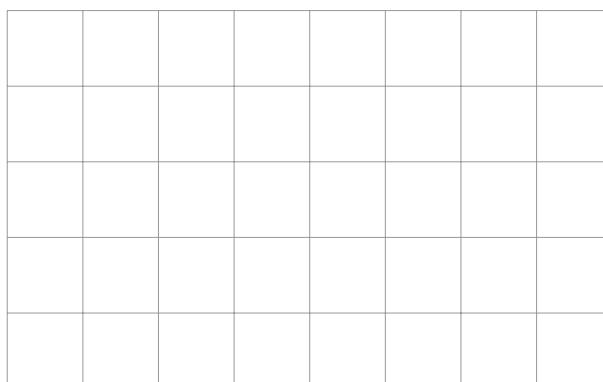


- (a) On the centimetre grid, draw the plan of the solid shape.



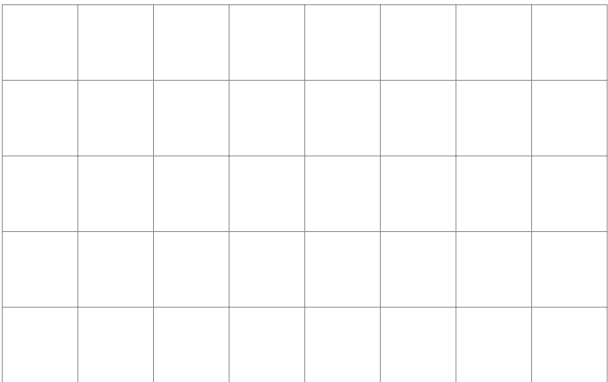
(2)

- (b) On the centimetre grid, draw the front elevation of the solid shape.



(2)

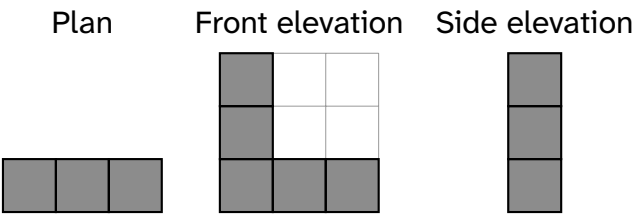
- (c) On the centimetre grid, draw the side elevation of the solid shape (the view from the right).



(2)

(Total for Question 2 is 6 marks)

- 3 A solid is made from centimetre cubes.
Here are its plan, front elevation and side elevation.

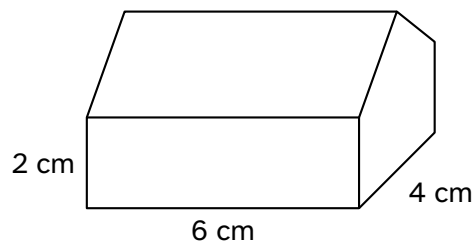


How many cubes are in the solid?

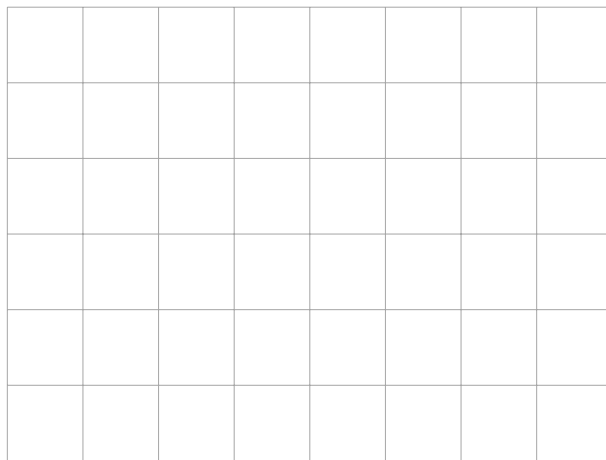
.....
(2)

(Total for Question 3 is 2 marks)

- 4** Here is a solid made from a cuboid with a roof in the shape of a triangular prism on top.
The cuboid is 6 cm long, 4 cm wide and 2 cm high.
The top edge of the roof is directly above the middle of the cuboid, along its length.



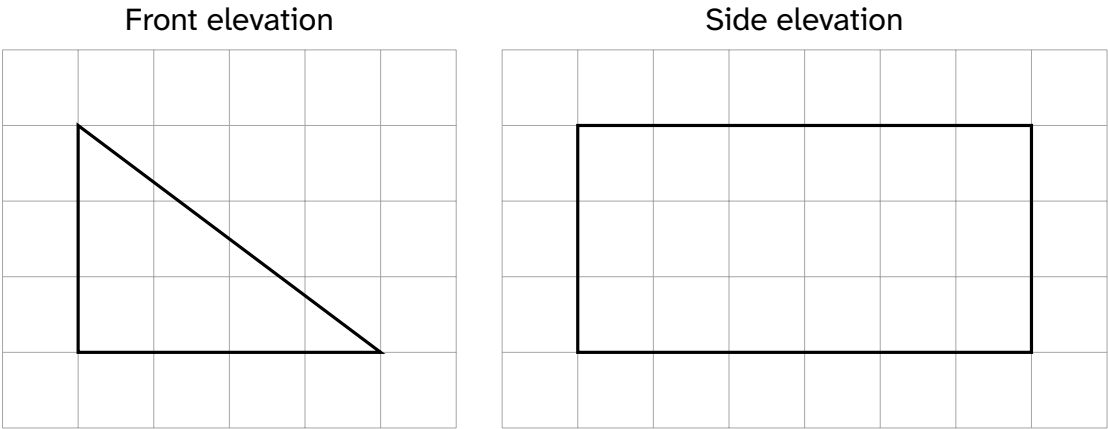
On the centimetre grid, draw the plan of this solid.



(2)

(Total for Question 4 is 2 marks)

- 5 The centimetre grid shows the front elevation and the side elevation of a triangular prism.



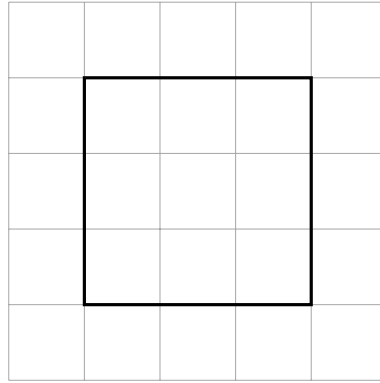
Work out the volume of the prism.

..... cm³

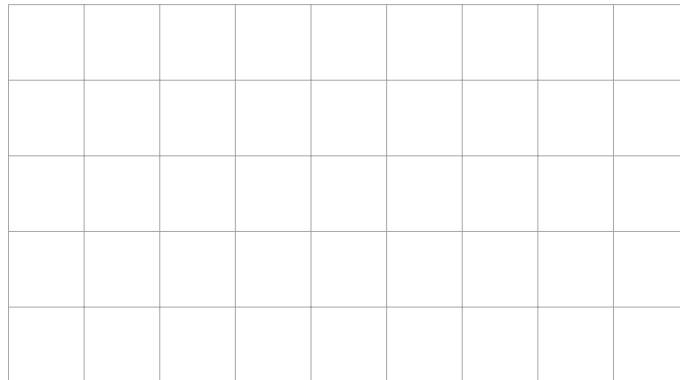
(3)

(Total for Question 5 is 3 marks)

- 6 The side elevation of a cuboid is shown on the centimetre grid below.



The area of the plan of the cuboid is 21 cm^2
On the grid, draw the front elevation of the cuboid.

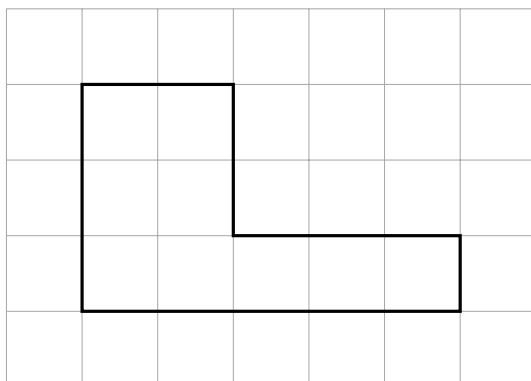


(3)

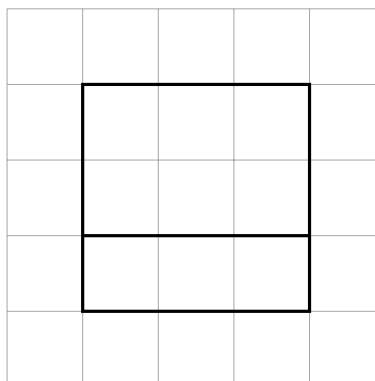
(Total for Question 6 is 3 marks)

- 7 Here are the front elevation, side elevation and plan of a prism, drawn on a centimetre grid.

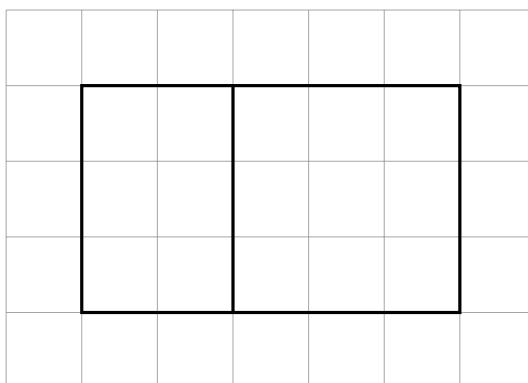
Front elevation



Side elevation



Plan



- (a) Sketch the prism.
Label the lengths of its edges on your sketch.

(2)

(b) Work out the volume of the prism.

..... cm³

(2)

(Total for Question 7 is 4 marks)
