

Surface Area of Prisms and Cylinders

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

Name _____

Total marks: **23**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method. You may use a calculator.

- 1** A cube has edges of length 5 cm.
Work out the total surface area of the cube.

..... cm^2
(2)

(Total for Question 1 is 2 marks)

- 2** Here is a cuboid.

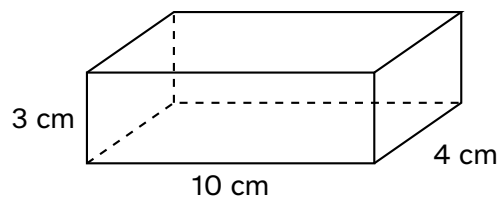


Diagram **NOT** accurately drawn

Work out the total surface area of the cuboid.

..... cm^2
(3)

(Total for Question 2 is 3 marks)

- 3** A cylinder has radius 4 cm and height 9 cm.
Work out the area of the curved surface of the cylinder.
Give your answer correct to 1 decimal place.

..... cm²
(2)

(Total for Question 3 is 2 marks)

- 4** A cube has a volume of 512 cm³
Work out the total surface area of the cube.

..... cm²
(3)

(Total for Question 4 is 3 marks)

- 5 The cross-section of this prism is a right-angled triangle with sides 6 cm, 8 cm and 10 cm.

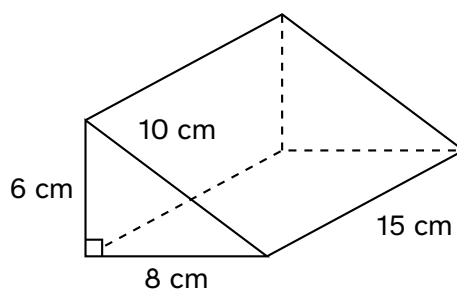


Diagram **NOT** accurately drawn

Work out the total surface area of the prism.

..... cm²
(4)

(Total for Question 5 is 4 marks)

- 6 Tom has 3 garden planters.
Each planter is a cuboid with no top.
Each planter is 1.2 m long, 0.4 m wide and 0.5 m high.
Tom is going to paint the outside of the planters, including the base but not the top.
One tin of paint covers 2.5 m²
Each tin of paint costs £9.80

Work out the cost of the paint Tom needs.

£
(4)

(Total for Question 6 is 4 marks)

- 7 A factory makes closed cylindrical tins.
Each tin has a diameter of 7 cm and a height of 11 cm.
The factory has a sheet of metal with an area of 2 m^2
Assume that none of the metal is wasted.

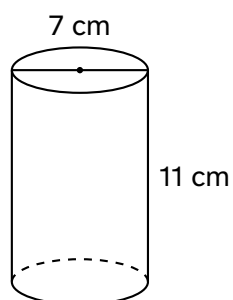


Diagram **NOT** accurately drawn

Can the factory make 80 tins from the sheet of metal?
You must show how you get your answer.

(5)

(Total for Question 7 is 5 marks)
