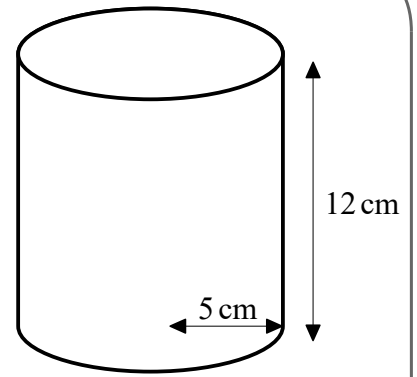


- 1 A cylinder has a radius of 5 cm and a height of 12 cm.

Work out the volume of the cylinder.
Give your answer in terms of π .

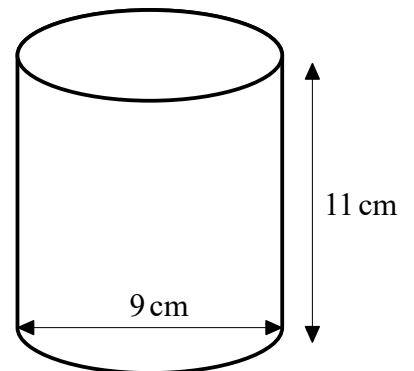


..... cm³

(Total for Question 1 is 3 marks)

- 2 A cylinder has a diameter of 9 cm and a height of 11 cm.

Work out the volume of the cylinder.
Give your answer correct to 1 decimal place.

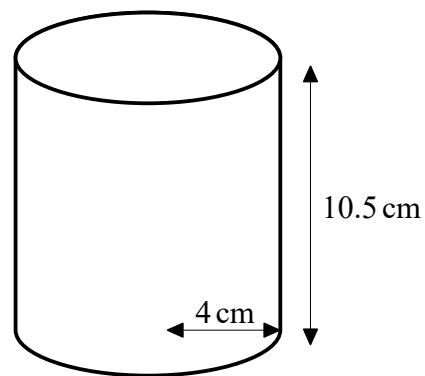


..... cm³

(Total for Question 2 is 3 marks)

- 3 A solid cylinder has a radius of 4 cm and a height of 10.5 cm.

Work out the total surface area of the cylinder.
Give your answer correct to 1 decimal place.

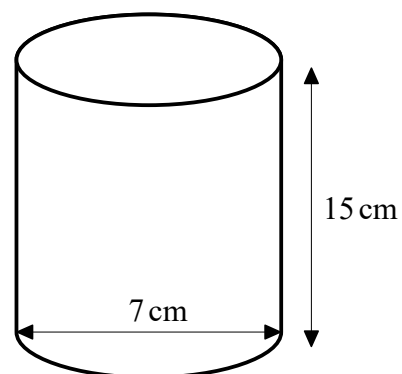


..... cm²

(Total for Question 3 is 3 marks)

- 4 A solid cylinder has a diameter of 7 cm and a height of 15 cm.

Work out the total surface area of the cylinder.
Give your answer correct to 3 significant figures.



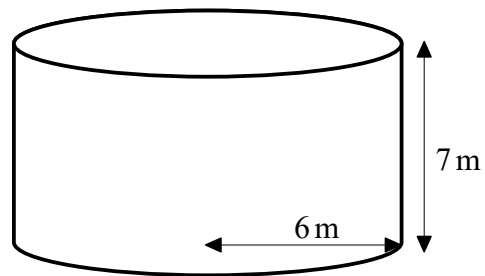
..... cm²

(Total for Question 4 is 3 marks)

- 5 A solid cylinder has a radius of 6 m and a height of 7 m.

Work out the total surface area of the cylinder.

Give your answer in terms of π .

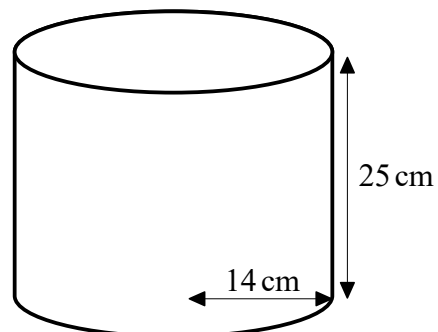


.....
(Total for Question 5 is 4 marks)

- 6 A solid cylinder has a radius of 14 cm and a height of 25 cm.

Work out the volume of the cylinder.

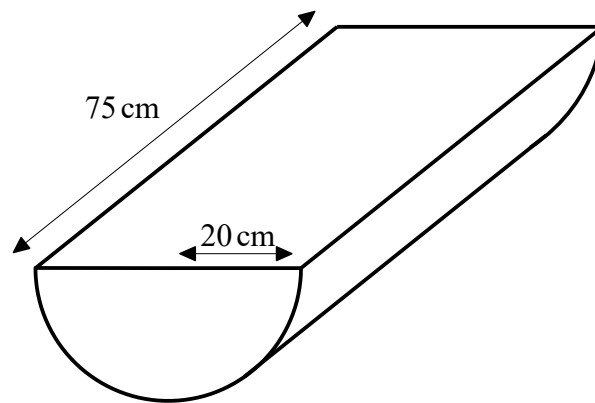
Give your answer correct to 3 significant figures.



.....
(Total for Question 6 is 4 marks)

7

A solid cylinder is cut in half to form a semi-cylinder with a radius of 20 cm and a length of 75 cm.



- (a) Work out the volume of the semi-cylinder.
Give your answer correct to 3 significant figures.

.....cm³
(3)

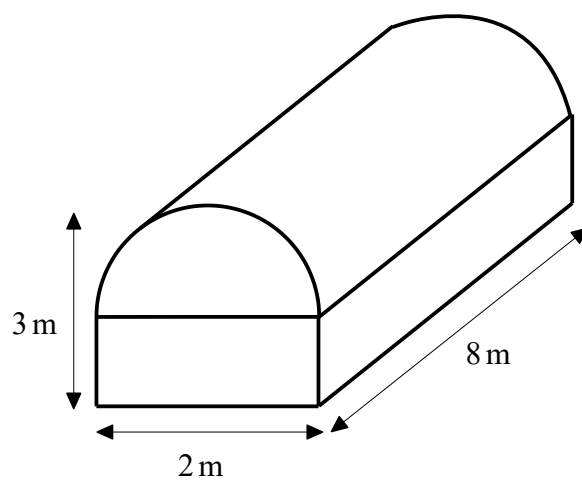
- (b) Work out the total surface area of the semi-cylinder.
Give your answer correct to 3 significant figures.

.....cm²
(3)

(Total for Question 7 is 6 marks)

8

A solid is formed by placing a half cylinder on a rectangular prism. The solid has a width of 2 m, a total height of 3 m and a length of 8 m.

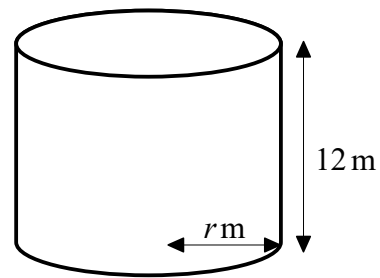


Work out the volume of the solid.
Give your answer correct to 3 significant figures.

.....m³

(Total for Question 8 is 4 marks)

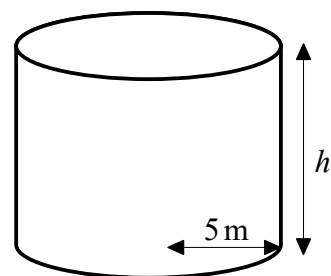
- 9** A solid cylinder has a radius of r m and a height of 12 m.
The volume of the cylinder is $507\pi \text{ m}^3$.
Find the value of r .



$$r = \dots\dots\dots$$

(Total for Question 9 is 4 marks)

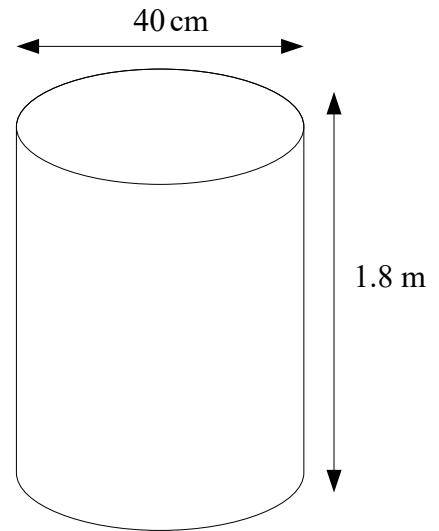
- 10** A solid cylinder has a radius of 5 m and a height of h m.
The total surface area of the cylinder is $165\pi \text{ m}^2$.
Find the value of h .



$$h = \dots\dots\dots$$

(Total for Question 10 is 4 marks)

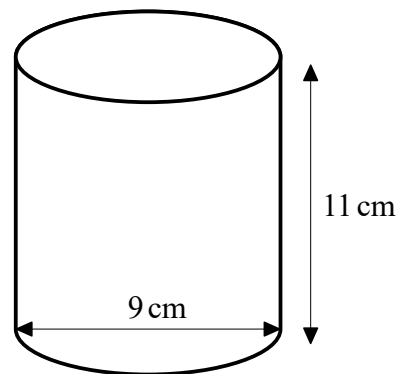
- 11** The diagram shows a cylindrical tank.
The tank has a top and a bottom.
- 5 of these tanks are going to be painted.
Each tank has a diameter of 40 cm and a height of 1.8 m.
- Each pot of paint can cover 4 m^2 .
- How many pots of paint are needed to paint the 5 tanks?



.....pots
(Total for Question 11 is 4 marks)

12 A cylinder has a diameter of 9 cm and a height of 11 cm.

- (a) Work out the volume of the cylinder.
Give your answer correct to 1 decimal place.



.....cm³
(3)

- (b) The volume of another cylinder is 1500 cm³.
Michael says that 1500cm³ is the same as 15 m³.

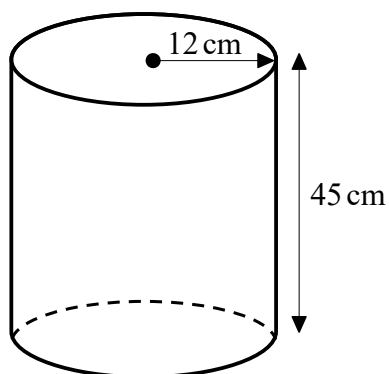
Is Michael correct?

You must give a reason for your answer.

.....
.....
(1)

(Total for Question 12 is 4 marks)

- 13** The diagram shows an empty tank in the shape of a cylinder.



The cylinder has radius 12 cm and height 45 cm.

Water flows into the tank at a rate of 1.8 litres per minute.

Calculate the number of minutes it will take to completely fill the tank.
Give your answer correct to the nearest minute.

.....minutes

(Total for Question 13 is 4 marks)
