

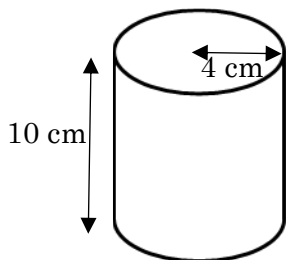


Cylinders Exam Practice

Q1. a) Work out the volume of the shape shown to 1 d.p.

(2 marks)

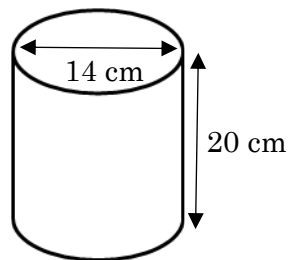
b) Work out the surface area of the shape shown to 1 d.p.
(2 marks)



Q2. a) Work out the volume of the shape shown to 2 d.p.

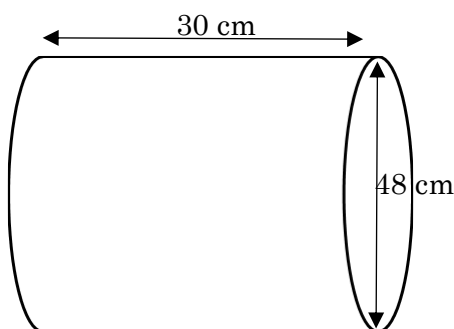
(2 marks)

b) Work out the surface area of the shape shown to 2 d.p.
(2 marks)



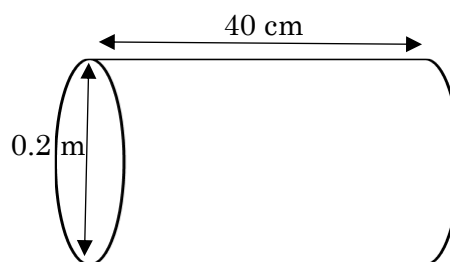
Q3. Work out the volume of the shape shown. Leave your answer in terms of π .

(2 marks)



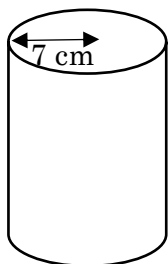
Q4. Work out the surface area of the shape shown. Leave your answer in terms of π .

(3 marks)



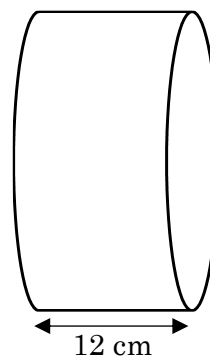
Q5. The volume of the cylinder is $392\pi \text{ cm}^3$ shown. Find the height of the cylinder.

(3 marks)



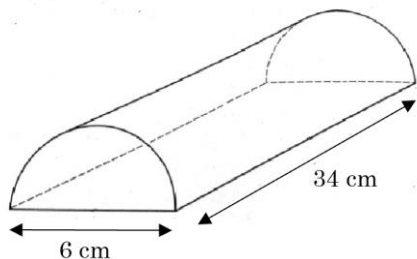
Q6. The volume of the cylinder is $8112\pi \text{ cm}^3$ shown. Find the radius of the cylinder.

(3 marks)

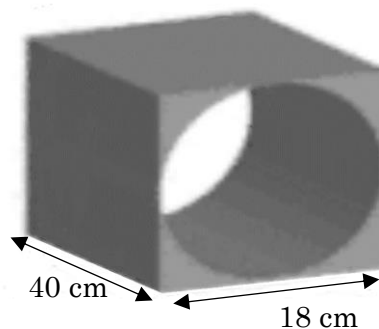




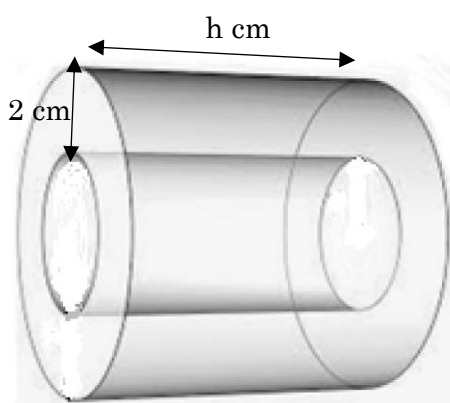
- Q7. a) Work out the volume of the shape shown to 1 d.p.
(3 marks)
- b) Work out the surface area of the shape shown to 1 d.p.
(3 marks)



- Q8. A cylinder is cut out of a wooden block in the shape of a cuboid. Work out the volume of the wood which remains. Leave your answer in terms of π .

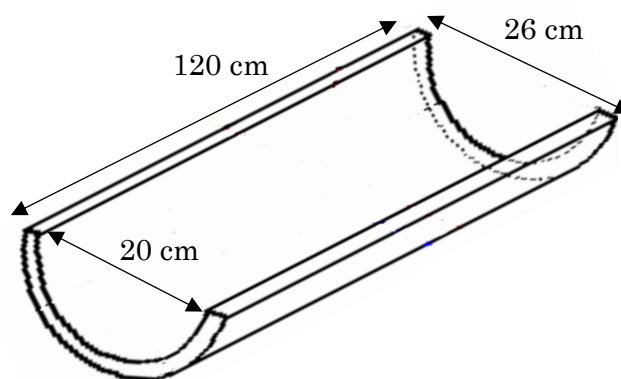


- Q9. A type of component is made by forming a metal cylinder, which then has a cylinder cut, and removed, from the inside of it. The diameter of the component is 7 cm, and the thickness of the component is 2 cm as shown.
- Given that the volume of the component is 4000 cm^3 , find the length h to the nearest mm.



(6 marks)

- Q10. A section of gutter pipe in the shape of an open half-cylinder of uniform thickness is shown below. 500 of these sections will form the full pipe, whose entire surface is to be painted in anti-mould paint. This type of paint costs $\text{£}7.50$ per can, and each can will cover 4 m^2 . How much will cost to paint the pipe?



(6 marks)