





Show all working – Calculator allowed.

1. A lipstick case is in the shape of a cylinder with a hemisphere on top.

The case has

- diameter 18 millimetres
- height 54 millimetres.

Calculate the volume of the case.

Give your answer correct to 3 significant figures





A toy company makes snooker balls in the shape of a sphere with a diameter of 4.6 centimetres.

Calculate the volume of one snooker ball. Give your answer correct to 2 significant figures. Marks

(3)

3. A ball bearing is made by coating a wax sphere evenly with aluminium.

A cross-section of the ball is shown below. The diameter of the ball is 16 mm and the thickness of the metal coating is 3 mm. Calculate the volume of the metal coating, correct to 3 significant figures.



4. A pottery designs a new bowl is in the shape of a 42cm large cone with a small cone removed. The large cone has diameter of 42 cm and height 34 cm. The small cone has diameter of 18 cm 18 cm 13.5 cm and height 13.5 cm. Calculate the volume of the bowl. Give your answer correct to 2 significant figures.

34cm (5)

Total Marks: 18