



Chapter 11 MENSURATION

Name:

Class :VIII Sec:

Answer the following questions

1. A match box is of dimension 3cm by 2.5cm by 1.5cm. What will be the volume of a packet containing 12 such match boxes? How many such match boxes can be placed in a card board box whose size 60cm by 20cm by 24cm?
2. How many 4cm cubes can be cut out from the cube whose edge is 32 cm?
3. The radius and height of a cylinder are in the ratio 5:7 and the volume 550 cm^3 . Find its total surface area.
4. A rectangular sheet of paper 88cm x 10cm is rolled along its length and cylinder is formed. Find the volume of the cylinder.
5. The dimensions of a cuboid are in the ratio of 2:3:4 and its total surface area is 280m^2 . Find the dimensions of the cuboid.
6. A roller of diameter 70cm and length 2m is rolling on the ground. What is the area covered by the roller in 50 revolutions?
7. The circumference of the base of a right circular cylinder is 220 cm. If the height of the cylinder is 2 m, find the curved surface area of the cylinder.
8. A cuboid is of dimensions 60cm x 54cm x 30cm. How many small cubes of side 6cm can be placed in the given cuboid.
9. The area of the base of a right circular cylinder is 15400 cm^2 and its volume is 92400 cm^3 . Find the area of the curved surface.
10. The bottom of a tank measures 50m x 40m. Find its depth if it contains 4000m^3 of water.
11. A closed cylindrical tank of radius 7m and height 3m is made from a sheet of metal. How much sheet of metal is required?
12. Two cylinders of same volume have their radii in the ratio 1:6. Find the ratio of their heights.
13. A swimming pool is 40m in length, 20m in breadth and 5m in depth. Find the cost of cementing its four walls and floor at the rate of ₹375 per m^2 .
14. The lateral surface area of a hollow cylinder is 6600m^2 . It is cut along its height and gets converted into a rectangular sheet of width 30m. Find the perimeter of the rectangular sheet.

15. **Case study based questions**

The students of ISN were asked to participate in a competition for making and decorating penholders in the shape of a cylinder with the base, using cardboard. Each penholder was to be of radius 3.5 cm and height 10.5cm.



1. The school was to supply the competitors with cardboard. If there were 35 competitors, how much cardboard was required to be bought for the competition?
2. If the cost of the cardboard was ₹ 7.5 per cm^2 , find the cost of the cardboard used for making the penholders?
3. The school had purchased 50 rectangular sheets of cardboard with dimensions $24 \text{ cm} \times 14 \text{ cm}$, find the remaining sheet of cardboard.