

1. Find the total surface area of a cone whose radius is $\frac{r}{2}$ and slant height is $2l$.
2. The radius of a spherical balloon increases from 7 cm to 14 cm as air is being pumped into it. Find the ratio of surface areas of the balloon in two cases.
3. A hemispherical bowl is 0.25 cm thick. The inner radius of bowl is 5 cm, find the outer curved surface area and volume of the bowl. (Use $\pi = \frac{22}{7}$)
4. How many litres of milk can be put in six hemispherical bowls each of radius 35 cm?
5. A cube and a cuboid have the same volume. The dimensions of the cuboid are in the ratio 1 : 2 : 4. If the difference between the cost of painting the cuboid and cube (whole surface area) at the rate of Rs.5 per m^2 is Rs. 80, find their volumes.
6. The diameter of a metallic ball is 4.2 cm. What is the mass of the ball, if the density of the metal is 8.9 per cm^3 ?
7. A vessel is of the shape of a cone. Radius of the broader end is 2.1 cm and height is 20 cm. Find the volume of the vessel.
8. A godown measures 30 m \times 25 m \times 8 m, find the maximum number of wooden crates each measuring 2 m \times 1.25 m \times 0.4 m that can be stored in the godown?
9. Coins of same size are placed one above the other and a cylindrical solid block is formed. The volume of this block is 49.28 cm^3 . Diameter of each coin is 2.8 cm and thickness 0.2 cm. Find the number of coins arranged in the block ($\pi = \frac{22}{7}$)
10. A hemispherical dome of a building needs to be painted. If the circumference of the base of the dome is 17.6 m. Find the cost of painting it, given the cost of painting is Rs. 5 per 100 cm^2 .
11. A joker's cap is in the form of a right circular cone of base radius 7 cm and height 24 cm. Find the area of the sheet required to make 10 such caps.

12. The area of the base of a right circular cylinder is 15400 cm^2 and its volume 92400 cm^3 . Find the height of the cylinder and also find the curved surface of the cylinder.
13. Curved surface area of an ice cream cone of slant height 12 cm is 113.04 cm^2 . Find the base radius and height of the cone. (Use $\pi = 3.14$)
14. A class room is 7 m long, 6.5 m wide and 4 m high. It has one door $3 \text{ m} \times 1.4 \text{ m}$ and three windows each measuring $2 \text{ m} \times 1 \text{ m}$. The interior wall is to be colour washed. Find the cost of colour washing at the rate of Rs. 3.50 per m^2 .

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