

1. Two cylindrical cans have bases of the same size. The diameter of each is 14 cm. One of the cans is 10 cm high and the other is 20 cm high. Find the ratio of their volumes.
2. The radius and vertical height of a cone are 5 cm and 12 cm respectively. Find the curved surface area.
3. A hollow cylindrical copper pipe is 210 cm long. Its outer and inner diameter are 10 cm and 6 cm respectively. Find the volume of the copper used in making the pipe?
4. Find the volume of a sphere whose surface area is 55.44 cm^2 . (Use $\pi = \frac{22}{7}$)
5. The floor of a rectangular hall has perimeter 250 m. If the cost of painting the four wall at the rate of Rs. 10 per m^2 is Rs. 15000. Find the height of the hall.
6. Ajay has built a cubical water tank in his house. The top of the water tank is covered with lid. He wants to cover the inner surface of the tank including the lid with square tiles of side 25 cm. If each inner edge of the water tank is 2 m long and tiles costs Rs. 360 per dozen, then find the total amount required for tiles.
7. A shot – putt is a metallic sphere of radius 4.9 cm. If the density of the metal is 7.8 g/cm^3 , find the mass of the shot – putt.
8. The capacity of a closed cylindrical vessel of height 1 m is 15.4 litres. How much square metres of metal sheet would be need to make it?
9. The capacity of a cuboidal tank is 15000 litres of water. Find the breadth of the tank, if its length and depth are respectively 2.5 m and 10 m.
10. A cylindrical pillar is 50 cm in diameter and 3.5 m in height. Find the cost of painting the curved surface of the pillar at the rate of Rs. 12.50 per m^2 .
11. A solid cube of side 12 m is cut into eight cubes of equal volume. What will be the side of the new cube? Also find the ratio between their surface areas.
12. A corn cob shaped somewhat like a cone, has the radius of its broadest end as 2.1 cm and length (height) as 20 cm. If each 1 cm^2 of the curved surface

carries an average of four grains, find how many grains would you find on the entire cob.

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