

1. The ratio of volumes of two cones is 4:5, and the ratio of the radii of their bases is 2:3. Find the ratio of their vertical heights.
2. The radius and slant height of a cone are in the ratio 4:7. If its CSA is 792 cm^2 . Find its radius.
3. The height of a conical vessel is 3.5 cm. Its capacity is 3.3 litres of milk. Find the diameter of its base.
4. A solid wooden toy is in the shape of a right circular cone mounted on a hemisphere. If the radius of the hemisphere is 4.2 cm and the total height of the toy is 10.2 cm, find the volume of wooden toy.
5. A hemispherical bowl made of brass has an inner diameter of 10.5cm. Find the cost of tin plating it on the inside at the rate of Rs.4 per 100 cm^2 .
6. Find the area of metal sheet required to make a closed hollow cone of base radius 7 cm and height 24cm.
7. A spherical cannonball, 28 cm in diameter is melted into a right circular conical mould, the base of which is 35cm in diameter. Find the height of the cone, correct to one place of decimal.
8. How many square meters of canvas is required for a conical tent whose height is 3.5cm and radius of whose base is 12cm?
9. The surface area of a sphere is 5544 cm^2 , find its diameter.
10. Find the total surface area of a hemisphere and a solid hemisphere each of radius 10 cm. ($\pi = 3.14$).
11. The dome of a building is in the form of a hemisphere. Its radius is 63 dm. Find the cost of painting it at the rate of Rs 2 per sqm.
12. A shopkeeper has one laddoo of radius 5cm. With the same material, how many laddoos of radius 2.5 cm can be made?
13. A spherical ball of lead 3cm in diameter is melted and recast into three spherical balls. If the diameters of 2 balls be $\frac{3}{2} \text{ cm}$ and 2cm, find the diameter of the third ball.