1. A cuboidal vessel is 10 m long and 8 m wide. How long must it be made to hold 380 cubic metres of liquid?
2. A patient in a hospital is given soup daily in a cylindrical bowl of diameter 7 cm. If the bowl is filled with soup to a height of 4 cm, how much soup the hospital has to serve to 250 patients? $\left(Take\ \pi = \frac{22}{7}\right)$
3. The capacity of a closed cylindrical vessel of height 1 m is 15.4 litres. How many square metres of metal sheet would be needed to make it?
4. The circumference of the base of a 10 m high conical tent is 44 m. Calculate the length of the canvas used in making the tent if width of the canvas is 2 m.
5. A cone, a hemisphere and a cylinder stand on equal bases and have the same height. Show that their volumes are in the ratio 1 : 2 : 3.
6. A spherical ball of lead 3 cm in radius is melted and recast into three spherical balls. If the radii of two balls is $\frac{3}{2}$ cm and 2 cm, find the diameter of the third ball.
7. The volume of two spheres are in the ratio 64 : 27. Find the difference of their surface areas, if the sum of their radii is 7 cm.
8. Find the cost of digging a cuboidal pit 8 m long, 5 m broad and 4 m deep at the rate of Rs. 100 per m^3.
9. The diameter of a metallic ball is 4.2 cm. What is the mass of the ball, if the density of the metal is 9 g per cm^3?
10. A hemispherical tank is made up of an iron sheet 1 cm thick. If the inner radius is 1 m then find the volume of the iron used to make the tank.
11. Find the ratio of the curved surface area of two cones if their diameters of the bases are equal and slant heights are in the ratio 4 : 3.
12. A hemispherical bowl of internal diameter 36 cm contains a liquid. This liquid is to be filled in cylindrical bottles of radius 3 cm and height 6 cm. How many bottles are required to empty the bowl? $\left(Use\ \pi = \frac{22}{7}\right)$

13. A dome of a building is in the form of a hemisphere from inside, it was white washed at the cost of R.s 498.96. If the cost of white washing is Rs. 2.00 per sq. m, find the inside surface area of the dome and volume of the air inside the dome. $\left(Use\ \pi = \frac{22}{7} \right)$

14. The dimensions of a rectangular box are in the ratio 2 : 3 : 4 and the difference between the cost of covering it with sheet of paper at the rates of Rs. 8 and Rs. 9.50 per m^2 is Rs. 1248. Find the dimensions of the box.