

Subject: Maths

Class:10

Topic: Ch.16 Surface Area & Volume

### EXERCISE 16.2

1. The diameter of a cylinder is 14 cm and its height is 15 cm. Calculate the total surface area and volume of the cylinder.
2. The height of a right circular cylinder is 7 cm and radius of its base is 3 cm. Find the curved surface area, total surface area and volume of the cylinder.
3. The area of circular base of a cylinder is  $154 \text{ cm}^2$  and its height is 21 cm. Find the volume and curved surface area of the cylinder.
4. The radii of two right circular cylinders are in the ratio 2 : 3 and their heights are in the ratio 5 : 4. Calculate the ratio of their curved surface areas and the ratio of their volumes.
5. A solid cylinder has total surface area of  $462 \text{ cm}^2$ . Its curved surface area is one third of its total surface area. Find the volume of the cylinder.
6. The curved surface area of a cylinder is  $660 \text{ cm}^2$  and its height is 15 cm. Find the volume of the cylinder.
7. The volume of a cylinder is  $30\pi \text{ cm}^3$  and the area of its base is  $6\pi \text{ cm}^2$ . Find the height of the cylinder.
8. The volume and curved surface area of a cylinder are  $1650 \text{ cm}^3$  and  $660 \text{ cm}^2$  respectively. Find the radius and the height of the cylinder.
9. The height and radius of a cylinder are 7.5 cm and 3.5 cm respectively. Find the ratio between the total surface area and curved surface area of the cylinder.
10. A 20 m deep well with diameter 7 m is dug and the earth from digging is evenly spread out to form a platform 22 m by 14 m. Find the height of the platform.
11.  $30800 \text{ cm}^3$  of water can be filled in a cylindrical container. The inner radius of the container is 14 cm. Find the inner curved surface area of the container.

- 
- 12.** A hollow cylinder, open at both ends has a thickness of 2 cm. If the inner diameter is 14 cm and its height is 26 cm then calculate the total surface area of the hollow cylinder.
- 13.** A hollow cylinder, open at both ends has a height of 20 cm. The inner and outer diameters are 26 cm and 30 cm respectively. Find the volume of this hollow cylinder.