Surface areas and volumes: worksheet -3

1. If the perimeter of base of a cylinder is 44 cm. and its height is 10 cm, then its curved surface area is _ _ _ _ _ _ _ _ _ _ _ _ _ . ( )

   (a) 440 sq.cm (b) 44 sq.cm (c) 4.4 sq.cm (d) 44 sq.cm

2. The volume of the cylinder is _ _ _ _ _ _ _ _ _ _ _ _ _ . ( )

   (a) a^3 (b) lbh (c) $\pi r^2 h$ (d) $\frac{1}{3}\pi r^2 h$

3. The lateral surface area of the cylinder is _ _ _ _ _ _ _ _. ( )

   (a) $4a^2$ (b) $2h(l+b)$ (c) $2\pi r h$ (d) $\pi r(s+r)$

4. The total surface area of the cylinder is _ _ _ _ _ _ _ _ . ( )

   (a) $6a^2$ (b) $2(lb+bh+lh)$ (c) $2\pi r(h+r)$ (d) $\pi r s$

5. Base area of a right circular cylinder is _ _ _ _ _ _ . ( )

   (a) $2\pi r$ (b) πr^2 (c) $2\pi r^2$ (d) All the above

6. Perimeter of the base of right circular cylinder is _ _ _ _ _ . ( )

   (a) $2\pi r$ (b) πr^2 (c) $2\pi r^2$ (d) All the above

7. Ring area formula is _ _ _ _ _ _ _ _ _ _ _ _ _ . ( )

   (a) $\pi R^2 r^2$ (b) $\pi (R^2 + r^2)$ (c) $\pi (R^2 - r^2)$ (d) $\pi \frac{R^2}{r^2}$

8. If the height of two cylinders are equal with different radii, then their L.S.A. are in the ratio of _ _ _ _ _ _ _ _ _ _ _ _ _ . ( )

   (a) R : r (b) $R^2 : r^2$ (c) $\sqrt{R} : \sqrt{r}$ (d) None

9. If the heights of two cylinders are equal with different radii R and r then their volume are in the ratio of _ _ _ _ _ _ _ _ _ _ _ _ _ ( )

   (a) R : r (b) $R^2 : r^2$ (c) $\sqrt{R} : \sqrt{r}$ (d) None

10. If the radii of two cylinders are equal and their heights are H and h then their curved surface are in the ratio of _ _ _ _ _ _ _ _ _. ( )

    (a) H : h (b) $H^2 : h^2$ (c) $H^3 : h^3$ (d) $\sqrt{H} : \sqrt{h}$