Ch-11 Surface Areas and Volumes

Surface Areas

1. Total surface area of a cuboid = 2 x [lb + bh + lh].
2. Total surface area of a cube = 6 x $(side)^2$.
3. Lateral surface area of a cuboid = Area of walls of a room = 2 x (l + b) × h.
4. Lateral surface area of a cube = 4 x $(side)^2$.
5. Curved surface area of cylinder = 2 π r h.
6. Total surface area of a cylinder = 2 π r (r + h).
7. Curved surface area of a cone = π r l, where l = $\sqrt{r^2 + h^2}$.
8. Total surface area of a cone = π r (r + l), where l = $\sqrt{r^2 + h^2}$.
9. Surface area of a sphere = 4 π r^2.
10. Curved surface area of a hemisphere = 2 π r^2.
11. Total surface area of a hemisphere = 3 π r^2.

Volumes

1. Volume of a cuboid = l × b × h.
2. Volume of a cube = $(side)^3$.
3. Volume of a cylinder = π r^2 r h.
4. Volume of a cone = $\frac{1}{3}$ π r^2 h.
5. Volume of a sphere = $\frac{4}{3}$ π r^3.
6. Volume of a hemisphere = $\frac{2}{3}$ π r^3.