Chapter – 11

Mensuration

- **Perimeter**: Length of boundary of a simple closed figure.
- **Area**: The measure of region enclosed in a simple closed figure.
- Area of a trapezium = half of the sum of the lengths of parallel sides × perpendicular distance between them.
- Area of a rhombus = half the product of its diagonals.
- **Perimeter of**:

  Rectangle = 2(l + b)

  Square = 4a

  Triangle = $\frac{1}{2}\times$ base × height

  Parallelogram = 2(sum of two adjacent sides)
- **Diagonal of:**

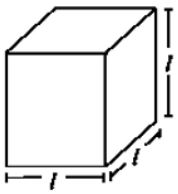
  Rectangle = $\sqrt{l^2+b^2}$

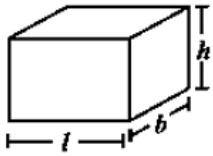
  Square = $\sqrt{2a}$
- **Surface area** of a solid is the sum of the areas of its faces.
- **Surface area of**:

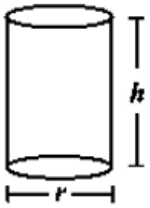
  $a\ cuboid\ =\ 2(lb\ +\ bh\ +\ hl)$

  $a\ cube\ =\ 6l^2$

  $a\ cylinder\ =\ 2\pi r(r\ +\ h)$







- Amount of region occupied by a solid is called its **volume.**
- Volume of

  $a\ cuboid\ = l \times b \times h$

  $a\ cube\ = l^3$

  $a\ cylinder\ = \pi r^2\ h$

  $(i)\ 1\ cm^3 = 1\ mL$

  $(ii)\ 1L\ = 1000\ cm^3$

  $(iii)\ 1\ m^3 = 1000000\ cm^3\ = 1000L$