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 =
$$2(l + b)$$

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

Parallelogram = 2(sum of two adjacent sides)

• Diagonal of:

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

Square =
$$\sqrt{2a}$$

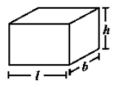
- **Surface area** of a solid is the sum of the areas of its faces.
- Surface area of:

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

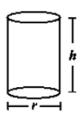
$$a \ cube = 6l^2$$

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





Key Notes



- 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 $m^3 = 1000000 cm^3 = 1000L$