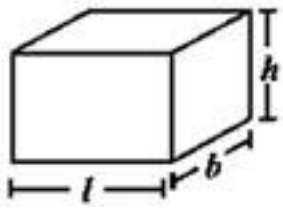
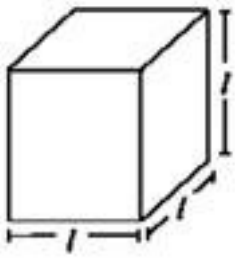
Chapter – 11

Mensuration

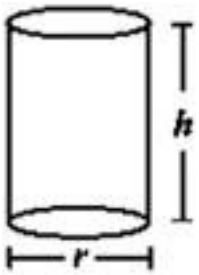
- **Perimeter**: Length of boundary of a simple closed figure.
  Perimeter of:
  Rectangle = 2(l + b)
  Square = 4a
  Parallelogram = 2(sum of two adjacent sides)
- **Area**: The measure of region enclosed in a simple closed figure.
- Area of a trapezium = half of the sum of the lengths of parallel sides × perpendicular distance between them.
- Area of a rhombus = half the product of its diagonals.
- Triangle = $\frac{1}{2}$ x base x height
- **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 x b x 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