

Mensuration

1. The size of a line segment is its length.
2. Various units of measurement are connected by the following relations:
1 kilometre = 1000 metre (m)
1 metre = 100 centimetre (cm)
1 decimetre = 10 centimetre (cm)
1 metre = 10 decimetre (dm)
1 centimetre = 10 millimetre (mm)
1 foot = 12 inches
1 yard = 3 feet
22 yards = 1 chain
3. A closed plane figure together with its interior is called the region enclosed by it.
4. The sum of lengths of all sides of a plane figure or the length of its boundary is called the 'perimeter' of the figure.
5. The measurement of the region enclosed by a closed plane figure is called the 'area' of the plane figure.
6. A square centimetre is the area of the region formed by a square of side 1 cm.
7. Standard units of area and their relations are:
 $100 \text{ mm}^2 = 1 \text{ cm}^2$
 $100 \text{ cm}^2 = 1 \text{ dm}^2$
 $100 \text{ dm}^2 = 1 \text{ m}^2$
 $10000 \text{ cm}^2 = 1 \text{ m}^2$
 $100 \text{ m}^2 = 1 \text{ are}$
100 ares = 1 hectare
100 hectares = 1 sq. km.
8. Perimeter of a rectangle = $2 (\text{Length} + \text{Breadth})$ or, $P = 2(l + b)$
Perimeter of a square = $4 \times (\text{Side})$ or, $P = 4l$
Area of a rectangle = $\text{Length} \times \text{Breadth}$ or, $A = l \times b$ Area A
Also, length of a rectangle $\frac{\text{Area}}{\text{Breadth}}$ or, $l = \frac{A}{b}$
Breadth of a rectangle $\frac{\text{Area}}{\text{Length}}$ or, $b = \frac{A}{l}$, Area of a square = $(\text{Side})^2$ or, $A = l \times l$.