(Talent & Olympiad Notes)

Mensuration

• Perimeter:

The total boundary length of a closed figure is called its perimeter. It is expressed in usual units of measurement of length.

• Area:

The amount of surface enclosed by a closed figure is called its area.

- (a) Area is measured in square units.
- (b) 1 m = 100 cm; 1 sq. m = 10000 sq. cm;
- (c) 1 cm = 10 mm; 1 sq. cm = 100 sq. mm

• Volume:

The space occupied by an object is called its volume.

- (a) Volume is measured in cubic units.
- (b) 1 cu m = 1000000 cu cm;
- (c) 1 cu cm = 1000 cu mm
- Cube:



It is a solid figure with 6 square surfaces.

• Volume of a cube = edge x edge x edge cu units.

• Cuboid:



It is a solid figure with 6 rectangular surfaces.

• Volume of a cuboid = length × breadth × height cubic units.

$$V = l \times b \times h$$

 $\therefore l = \frac{V}{bh}; \qquad b = \frac{V}{lh}; \qquad h = \frac{V}{lb};$

- The shape obtained on opening a solid shape is called a net.
- A net can be folded back or closed into form a solid.

• Net of a cube :



The net of a cube has 6 squares.

• Net of a cuboid :



The net of a cuboid has 6 rectangles.