

MATHS

Mensuration

1. Perimeter is the distance around a closed figure when we go around the figure once.
So, perimeter = sum of lengths of all sides
2. Perimeter is expressed in units of length.
3. Perimeter of a triangle is the sum of the lengths of all its three sides.
4. Perimeter of a square = $(4 \times \text{side})$ units
5. Perimeter of a rectangle = $2 (\text{Length} + \text{Breadth})$ units
6. Figures in which all sides and angles are equal are called regular closed figures.
7. Perimeter of regular shapes = number of sides \times length of one side
8. The measurement of the region enclosed by a plane figure is called the area of the figure.
9. Area is always expressed in square units.
10. Following conventions are adopted to calculate the area of a figure using a squared paper (with measure of each square as $1 \text{ cm} \times 1 \text{ cm}$):
 - i. Ignore portions of the area that are less than half a square.
 - ii. If more than half a square is in the region, count it as one square.
 - iii. If exactly half the square is in the region, take its area as $\frac{1}{2}$ sq units.
11. Area of a rectangle = $(\text{length} \times \text{breadth})$ square units
12. Area of a square = $(\text{side} \times \text{side})$ square units
13. Unit conversion:
 - 1 m = 100 cm
 - 1 cm = 10 mm
 - 1 sq m = 10,000 sq cm
 - 1 sq cm = 100 sq mm
 - 1 hectare = 10,000 sq m