

CBSE Class 7 Maths Notes Chapter 9 Perimeter and Area

The perimeter of a regular polygon = number of sides \times length of one side

The perimeter of a square = $4 \times$ side

Perimeter of rectangle = $2 \times (l + b)$

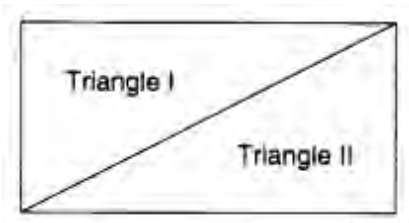
(where l and b denote the length and breadth respectively of the rectangle)

Area of a square = side \times side

Area of a rectangle = $l \times b$

Triangles as Parts of Rectangles

The sum of the areas of the two triangles, into which a diagonal of a rectangle divides the rectangle, is the same as the area of the rectangle. Also, both the triangles are equal in area.



Generalising for Other Congruent Parts of Rectangles

If we divide a rectangle into two congruent parts so that the area of one part is equal to the area of the other part, then

area of each congruent part = $\frac{1}{2}$ (the area of the rectangle)

Area of parallelogram = base \times corresponding height (altitude)

Conversion of Units

1 cm = 10 mm

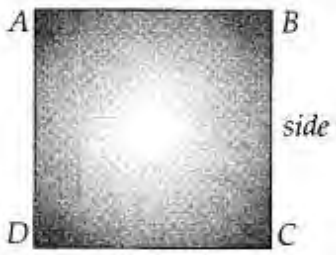
1 cm² = 100 mm²

1 m² = 100 \times 100 = 10,000 cm²

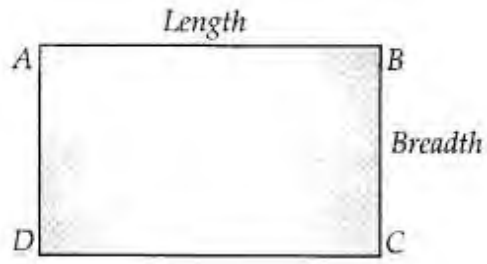
1 km² = 1000 \times 1000 = 1,000,000 m²

1 hectare = 10,000 m²

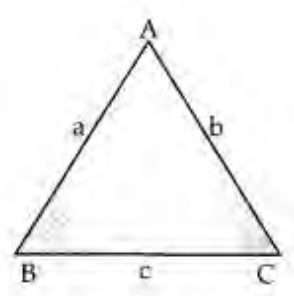
Perimeter of square = $4 \times \text{side}$



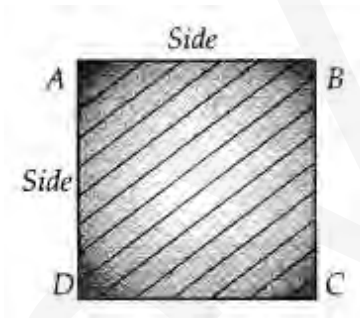
Perimeter of Rectangle = $2 \times (\text{length} + \text{breadth})$



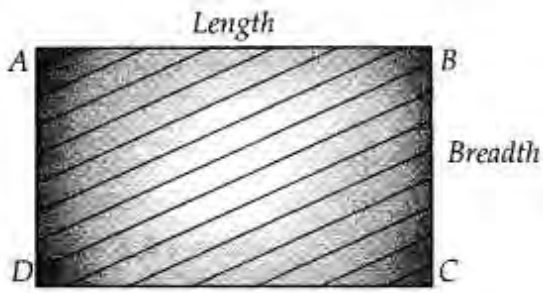
Perimeter of triangle = sum of all sides of triangle = $a + b + c$



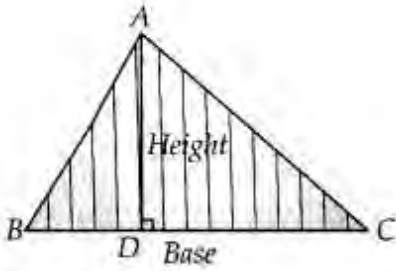
Area of square = side \times side = $(\text{side})^2$



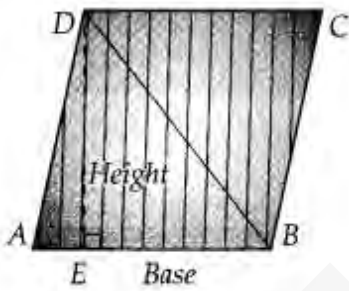
Area of Rectangle = Length \times Breadth = $l \times b$



Area of Triangle = $\frac{1}{2} \times \text{Base} \times \text{Height (Altitude)}$

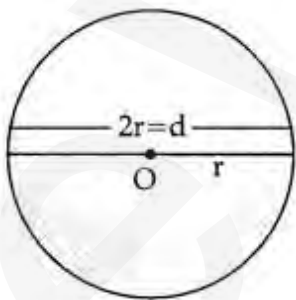


Area of a parallelogram = Base \times Height



The distance around a circular region is known as its circumference.

Circumference of a circle = $\pi d = \pi(2r) = 2\pi r$. where d is diameter and r is the radius.



Area of a circle = πr^2

$\pi = \frac{22}{7}$ or 3.14 (approximately).