A. Area of Paths and Verandahs

1. A room 7.5 m long and 3.5 m wide is surrounded by a verandah 1.5 m wide. Find the area occupied by the verandah.
2. A rectangular field is 45m x 30. A path 1.5m wide is to be constructed along the sides inside the field. Find the area of the path and its cost or construction at the rate of Rs1.50 per square metre.
3. A rectangle is 65.9m long and 48 m wide. By how many square metres does its area fall- short of a hectare? (1 hectare= 10000 sq m.)
4. A sheet of paper is 60cm x 40cm. a strip 5 cm wide is cut from it all around. Find the area of the strip and the area of the remaining sheet.
5. A 6m wide path runs around the inside of a rectangular lawn whose length is 92m and breadth is 48m. find the area of the path.
6. A square field of side 75m has a 5m wide path running all around the outside of the field. Find the area of the path.

B Area of Cross Roads

1. A field is 75 m long and 32 m wide. Two 3 m wide roads are constructed in the centre of the field one parallel to its length and the other parallel to its breadth. Find (a) area of cross roads (b) the cost of leveling the roads at Rs 1.80 per square metre (c) area of the remaining field.

2. A rectangular field is of dimensions 30m x 15.5m. Two paths run parallel to the sides of the rectangle through the centre of the field. The width of the longer path is 1.4m and that of the shorter path is 2m. find (a) the area of the paths and (b) the cost of cementing the paths at the rate of Rs 70 per m^2
3. An oblong garden 200m long and 180m wide has two cross roads in its centre. The width of the longer road is 4m and that of the shorter road is 3m. find the cost of watering the garden at 30 paisa per square meter.

C. Area of A Parallelogram

Base of a parallelogram $= \frac{area}{height}$

Height of a parallelogram $= \frac{area}{base}$

1. A floral design on the floor of a building consist of 280 tiles. Each tile is in the shape of a parallelogram of height of 3 cm and base 5 cm. find the cost of polishing the design at 50 paise per square centimeter.
2. The area of an agriculture farm is 100 hectares. If the farm is in the shape of a parallelogram whose one side is 2500 metres, find the corresponding altitude.
3. ABCD is a parallelogram.DE ⊥ AB, AB =60m and AD =50m. if the area of the parallelogram is 2400m^2, find AE.
4. Find the area of the parallelogram whose one side is 26cm and the corresponding altitude is 8.5cm.

5. A rectangular garden measures 84m by 76m. a path 3 m wide is constructed all around the inside of the park. Find the cost of paving the path with rectangular tiles of side 50cm x 25cm at the rate of Rs 5 per tile.

D. Area of a triangle

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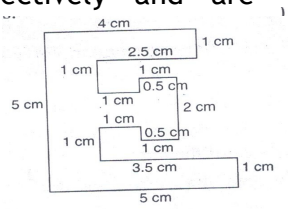
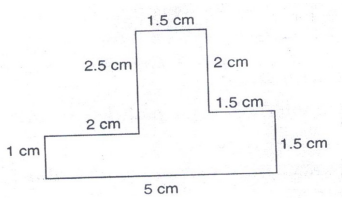
Hence, area of triangle $=\frac{1}{2}$ base x corresponding altitude

Base of a triangle $=\frac{2 \times area}{corresponding\ altitude}$

Altitude of a triangle $=\frac{2 \times area}{corresponding\ base}$

1. Find the area of a triangular field whose base is 80m and he corresponding altitude is 45m.
2. Find the area of an equilateral triangle of sides 30cm each.
3. Find the area of a quadrilateral ABCD whose diagonal AC= 22cm and perpendiculars from B and D on AC are 3 cm each.
4. Find the area of the quadrilateral ABCD. The diagonals BD and AC measure 68 metres and 30 metres respectively and are perpendicular to each other.
5. Find the Area of The Figure





E. Area of a circle

Area of the circle

Area of parallelogram = b X h

Area of the circle $=\Pi r^2$

1. Find the area of a circle whose

(a) Radius =56cm, (b) circumference =440 metres.

2. Find the area of a circle whose circumference is 66 cm.
3. A horse is tied to peg fixed at one corner of a rectangular field 30m x 20m by means of a 7m long rope. Find:

a. The area of that part of the field in which the horse can graze.

b. The increase in the grazing area if the rope were 14m long.

4. The diameter of a circular garden is 140 metres. On its outside, there is a road 7 metre wide. Find the cost of levelling the road at Rs. 1.50 per sq.metre.
5. Find the area of the circle whose circumference is 88m.
6. Find the radius of the circle whose area is 308 sq cm.
7. A garden is 200 m long and 160 m broad. In its middle there is a circular tank of radius 28m. Find the cost of covering the remaining portion of the garden with grass at the rate of 50 paisa per sq meter.

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