



Mensuration Ex 20.2 Q7

Answer :

Given:

Perimeter = 50 cm

Length of the first side = 15 cm

Length of the second side = 20 cm

We have to find the length of the third side.

Perimeter of a triangle = Sum of all three sides of the triangle

$$\begin{aligned}\therefore \text{Length of the third side} &= (\text{Perimeter of the triangle}) - (\text{Sum of the length of the other two sides}) \\ &= 50 - (15 + 20) \\ &= 50 - 35 = 15 \text{ cm}\end{aligned}$$

Mensuration Ex 20.2 Q8

Answer :

It is given that a wire of length 20 m is to be folded in the form of a rectangle; therefore, we have:

Perimeter of the rectangle = 20 m

$$\Rightarrow 2(\text{Length} + \text{Breadth}) = 20 \text{ m}$$

$$\Rightarrow (\text{Length} + \text{Breadth}) = 20/2 = 10 \text{ m}$$

Since, length and breadth are positive integers in metres, therefore, the possible dimensions are:

(1m, 9m), (2m, 8m), (3m, 7m), (4m, 6m) and (5m, 5m)

Thus, five rectangles can be formed with the given wire.

Mensuration Ex 20.2 Q9

Answer :

Side of the square field = 100 m

Wire required to fence the square field = Perimeter of the square field = 4 × Side of the square field

$$\text{Perimeter} = 4 \times 100 = 400 \text{ m}$$

This perimeter is the length of wire required to fence one layer.

$$\text{Therefore, the length of wire required to fence three layers} = 3 \times 400 \text{ m} = 1200 \text{ m}$$

Mensuration Ex 20.2 Q10

Answer :

Shikha and Priya, while running around the square and rectangular field respectively, actually cover a distance equal to the perimeters of these fields.

$$\therefore \text{Distance covered by Shikha} = \text{Perimeter of the square} = 4 \times 75 \text{ m} = 300 \text{ m}$$

$$\text{Similarly, distance covered by Priya} = \text{Perimeter of the rectangle} = 2 \times (60 + 45) = 2 \times 105 = 210 \text{ m}$$

Thus, it is evident that the distance covered by Priya is less than that covered by Shikha.

Mensuration Ex 20.2 Q11

Answer :

Dimensions of the photograph = 30 cm × 20 cm

So, the required length of wooden frame = Perimeter of the photograph

$$= 2 (\text{Length} + \text{Breadth})$$

$$= 2 \times (30 + 20) \text{ cm}$$

$$= 2 \times 50 \text{ cm}$$

$$= 100 \text{ cm}$$

Mensuration Ex 20.2 Q12

Answer :

Length of the rectangular field = 100 m

Perimeter of the rectangular field = 300 m

Perimeter of a rectangle = 2 (Length + Breadth)

Applying the above formula, we get:

Breadth of the rectangular field = $\frac{\text{Perimeter}}{2} - \text{Length} = \frac{300}{2} - 100 = 150 - 100 = 50 \text{ m}$

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