

# Mensuration Ex 20.2 Q13 Answer:

Length of the garden = 70 m

Breadth of the garden = 50 m

Perimeter of the garden = 2 ×(Length + Breadth)

 $= 2 \times (70 + 50)$ 

= 2 × 120 = 240 m

On the perimeter of the garden, it is given that Arvind fixes a post every 5 metres apart.

So, the number of posts required =  $\frac{240}{5}$  = 48

- :: Length of each post = 2 m
- ... Total length of the pipe required = 48 ×2 = 96 m

Mensuration Ex 20.2 Q14

## Answer:

Length of the park = 175 m

Breadth of the park = 125 m

Perimeter of the park =  $2 \times (Length + Breadth)$ 

 $= 2 \times (175 + 125)$ 

= 2 × 300 = 600 m

Rate of fencing = Rs. 12 per meter

Cost of fencing = Rs. 12 × 600 = Rs. 7,200

Mensuration Ex 20.2 Q15

## Answer:

A regular pentagon is a closed polygon having five sides of equal length.

Perimeter of the regular pentagon = 100 cm

Perimeter of the regular pentagon =  $5 \times \text{Side}$  of the regular pentagon

Therefore, side of the regular pentagon =  $\frac{Perimeter}{5} = \frac{100}{5} = 20 \text{ cm}$ 

Mensuration Ex 20.2 Q16

#### Answer:

A regular hexagon is a closed polygon having six sides of equal lengths.

Side of the hexagon = 8 m

Perimeter of the hexagon =  $6 \times$  Side of the hexagon

 $= 6 \times 8 = 48 \text{ m}$ 

Mensuration Ex 20.2 Q17

## Answer:

Dimensions of the rectangular land =  $0.7 \text{ km} \times 0.5 \text{ km}$ 

Perimeter of the rectangular land = 2 (Length + Breadth)

$$= 2 (0.7 + 0.5) \text{ km} = 2 \times 1.2 \text{ km} = 2.4 \text{ km}$$

This perimeter is equal to one row of wire required to fence the land.

Therefore, length of wire required to fence the land with four rows of wire =  $4 \times 2.4$  km

$$= 9.6 \text{ km}$$

## Mensuration Ex 20.2 Q18

## Answer:

(i) Length of the side of one slab = 1/2 m

In the square arrangement, one side of the square is formed by three slabs.

So, length of the side of the square =  $3 \times 12 = 3/2$  m

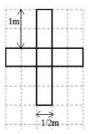
The perimeter of the square arrangement =  $4 \times 32 = 6 \text{ m}$ 

(ii) The cross arrangement consists of 8 sides. These sides form the periphery of the arrangement and measure 1 m each.

Also, this arrangement consists of other 4 sides that measure 1/2 m each.

So, the perimeter of the cross arrangement = (1 + 1/2 + 1 + 1 + 1/2 + 1 + 1 + 1/2 + 1 + 1 + 1/2 + 1)

$$=(8+2)=10 \text{ m}$$



(iii) Perimeter of the cross arrangement = 10 m

Perimeter of the square arrangement = 6 m

Thus, the perimeter of the the cross arrangement is more than that of the square arrangement.

(iv) No, there is no way of arranging these slabs where the perimeter is more than 10 m.

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