

Mensuration-I area of a trapezium and a polygon Ex 20.1 Q16

## Answer:

## Given:

Length of each side of a field in the shape of a rhombus = 14 cmAltitude = 16 cm

Now, we know: Area of the rhombus = Side × Altitude

 $\therefore$  Area of the field =  $14 \times 16 = 224 \text{ cm}^2$ 

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## Answer:

Given:

Cost of fencing 1 metre of a square field = 60 paise

And, the total cost of fencing the entire field = Rs 1200 = 1,20,000 paise

 $\therefore$  Perimeter of the square field =  $\frac{120000}{60}$  = 2000 metres

Now, perimeter of a square  $= 4 \times \text{side}$ 

For the given square field:

 $4 \times \text{Side} = 2000 \text{ m}$ 

Side =  $\frac{2000}{4}$  = 500 metres

 $\therefore$  Area of the square field =  $500 \times 500 = 250000 \text{ m}^2$ 

Again, given: Cost of reaping per  $100 \text{ m}^2 = 50 \text{ paise}$ 

- $\therefore$  Cost of reaping per 1 m<sup>2</sup> =  $\frac{50}{100}$  paise
- ... Cost of reaping 250000 m<sup>2</sup> =  $\frac{50}{100} \times 250000 = 125000$  paise

Thus, the total cost of reaping the complete square field is 125000 paise, i.e. Rs 1250.

## Mensuration-I area of a trapezium and a polygon Ex 20.1 Q18 Answer:

Given:

Side of the square plot = 84 m

Now, the man wants to exchange it with a rectangular plot of the same area with length 144.

Area of the square plot =  $84 \times 84 = 7056 \text{ m}^2$ 

 $\therefore$  Area of the rectangular plot = Length×Width

 $7056 = 144 \times Width$ 

 $\Rightarrow$  Width= $\frac{7056}{144}$ =49 m

Hence, the width of the rectangular plot is 49 m.

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