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 $= 14$ cm
Altitude $= 16$ cm
Now, we know: Area of the rhombus $=$ Side$\times$Altitude
$\therefore$ Area of the field $= 14\times16 = 224$ cm^2

Mensuration-I area of a trapezium and a polygon Ex 20.1 Q17

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 $= 4\times$side
For the given square field :
$4\times$Side $= 2000$ m
Side $= \frac{2000}{4} = 500$ metres
$\therefore$ Area of the square field $= 500\times500 = 250000$ m^2
Again, given: Cost of reaping per 100 m^2 $= 50$ paise
$\therefore$ Cost of reaping per 1 m^2 $= \frac{50}{100}$ paise
$\therefore$ Cost of reaping 250000 m^2 $= \frac{50}{100}\times250000 = 125000$ 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 $= 84\times84 = 7056$ m^2
$\therefore$ Area of the rectangular plot $=$ Length$\times$Width
$7056 = 144\times$ Width
$\Rightarrow$ Width$= \frac{7056}{144} = 49$ m
Hence, the width of the rectangular plot is 49 m.

********** END **********