Mensuration I Ex 20.1 Q16

Answer :

We have,
Length of the lane = 180 m
Breadth of the lane = 5 m
Area of a lane = Length x Breadth = 180 m x 5 m = 900 m^2
Length of the brick = 20 cm
Breadth of the brick = 15 cm
Area of a brick = Length x Breadth = 20 cm x 15 cm = 300 cm^2 = 0.03 m^2 [Since 1 m^2 = 10000 cm^2]

Required number of bricks = $\frac{900\ m^2}{0.03\ m^2} = 30000$

Cost of 1000 bricks = Rs. 750

∴ Total cost of 30,000 bricks = Rs. $\left(\frac{750\times30,000}{1000}\right) = \text{Rs. } 22,500$

Mensuration I Ex 20.1 Q17

Answer :

We have,
Length of the sheet of paper = 125 cm
Breadth of the sheet of paper = 85 cm
Area of a sheet of paper = Length x Breadth = 125 cm x 85 cm = 10,625 cm^2
Length of sheet required for an envelope = 17 cm
Breadth of sheet required for an envelope = 5 cm
Area of the sheet required for one envelope = Length x Breadth = 17 cm x 5 cm = 85 cm^2
Thus,
Required number of envelopes = $\frac{10,625\ cm^2}{85\ cm^2} = 125$

Mensuration I Ex 20.1 Q18

Answer :

We have,
Length of the diaper = 50 cm
Breadth of the diaper = 17 cm
Area of cloth to make 1 diaper = Length x Breadth = 50 cm x 17 cm = 850 cm^2
Thus,
Area of 25 such diapers = (25 x 850) cm^2 = 21,250 cm^2
Area of total cloth = Area of 25 diapers
= 21,250 cm^2
It is given that width of a cloth = 170 cm
∴ Length of the cloth = $\frac{\text{Area of cloth}}{\text{Width of a cloth}} = \frac{21,250\ cm^2}{170\ cm} = 125\ cm$
Hence, length of the cloth will be 125 cm.

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