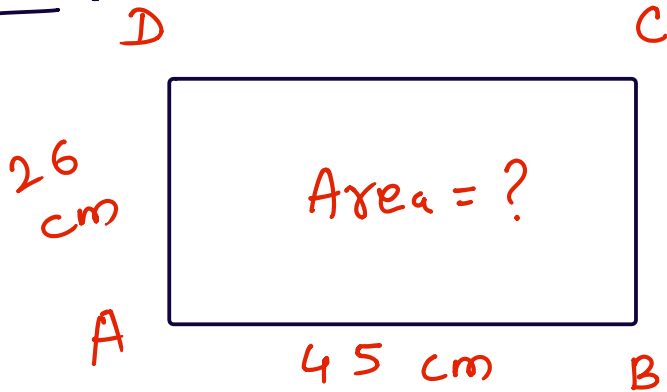


Practice set 46

1. A page of a calendar is 45 cm long and 26 cm wide. What is its area ?

Solⁿ:-



For calendar,

$$l = 45 \text{ cm}$$

$$b = 26 \text{ cm}$$

\therefore Area of the Page of the

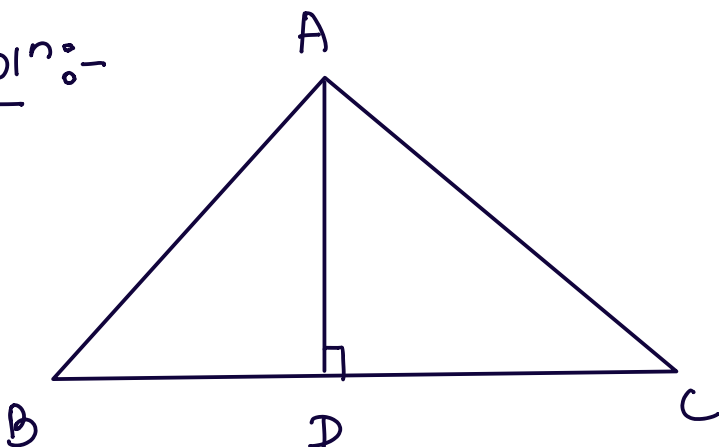
$$\text{Calendar} = l \times b$$

$$= 45 \times 26$$

$$= \underline{1170 \text{ cm}^2}$$

2. What is the area of a triangle with base 4.8 cm and height 3.6 cm ?

Solⁿ:-



For triangle,

$$\text{Base} = BC = 4.8 \text{ cm}$$

$$\text{Height} = AD = 3.6 \text{ cm}$$

$$\text{Area} = ?$$

$$\therefore \text{Area of triangle} = \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times 4.8 \times 3.6$$

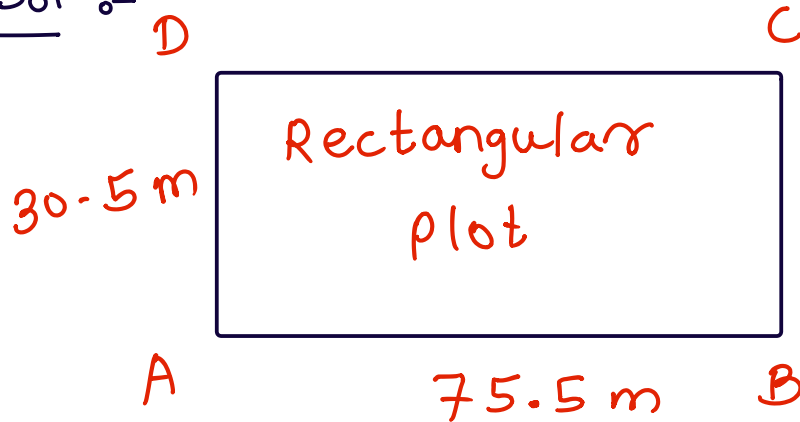
$$= \frac{4.8 \times \cancel{3.6}^{1.8}}{\cancel{2}_1}$$

$$= 4.8 \times 1.8$$

$$\therefore \text{Area of triangle} = 864 \text{ cm}^2$$

3. What is the value of a rectangular plot of land 75.5 m long and 30.5 m broad at the rate of 1000 rupees per square metre?

Soln:-



For Rectangular

Plot,

$$l = 75.5 \text{ m}$$

$$b = 30.5 \text{ m}$$

$$\text{rate} = ₹ 1000 / \text{metre}$$

$$\text{Value} = ?$$

$$\begin{aligned}
 \text{Area of rectangular Plot} & \\
 &= l \times b \\
 &= 75.5 \times 30.5 \\
 &= 2302.75 \text{ m}^2
 \end{aligned}$$

$$\begin{aligned}
 \text{Value of the rectangular plot} & \\
 &= \text{Area} \times \text{rate / metre} \\
 &= 2302.75 \times 1000 \\
 &= \underline{\underline{\text{₹ } 23,02,750}}
 \end{aligned}$$

4. A rectangular hall is 12 m long and 6 m broad. Its flooring is to be made of square tiles of side 30 cm. How many tiles will fit in the entire hall? How many would be required if tiles of side 15 cm were used?

Solⁿ:- For rectangular hall,

$$l = 12 \text{ m} = 1200 \text{ cm}$$

$$b = 6 \text{ m} = 600 \text{ cm}$$

$$\begin{aligned}
 \therefore \text{Area of the rectangular hall,} & \\
 &= l \times b \\
 &= 1200 \times 600 \\
 &= 7,20,000 \text{ cm}^2
 \end{aligned}$$

Now, Area of each square tile

$$= (\text{side})^2$$

$$= (30)^2$$

$$= 900 \text{ cm}^2$$

∴ No. of tiles required

$$= \frac{\text{Area of Rectangular Hall}}{\text{Area of each square tile}}$$

$$= \frac{\overset{800}{\cancel{7,20,000}}}{\underset{|}{\cancel{900}}}$$

$$= \underline{800 \text{ tiles}}$$

* For 15 cm - side square tile :-

Now, Area of each square tile

$$= (\text{side})^2$$

$$= (15)^2$$

$$= 225 \text{ cm}^2$$

∴ No. of tiles required

$$= \frac{\text{Area of Rectangular Hall}}{\text{Area of each square tile}}$$

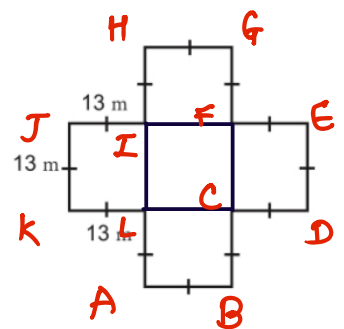
$$= \frac{144}{7,20,000}$$

$$= \frac{1,44,000}{45}$$

$$= \frac{3,200}{1}$$

$$= \underline{3,200 \text{ tiles}}$$

5. Find the perimeter and area of a garden with measures as shown in the figure alongside.



Solⁿ:- As all sides of the garden are equal.

∴ Perimeter of the garden

$$= AB + BC + CD + DE + EF + FG + GH + HI + IJ + JK + KL + LA$$

$$= 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13$$
$$+ 13 + 13 + 13 + 13$$

$$= 13 \times 12$$

$$= 156 \text{ m}$$

$$\therefore \text{Perimeter} = 156 \text{ m}$$

Area of the Garden

$$= \left(\text{Area of the } \square \text{ ABCD} \right) \times 5$$

$$= (\text{side})^2 \times 5$$

$$= (13)^2 \times 5$$

$$= 169 \times 5$$

$$= 845 \text{ m}^2$$

$$\therefore \text{Area of the Garden} = 845 \text{ m}^2$$