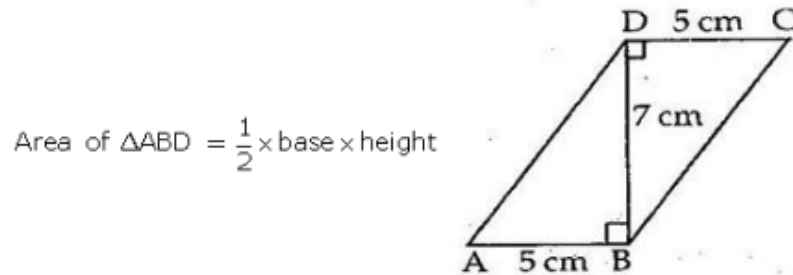




### Exercise 10A

Question 1:



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

$$= \left( \frac{1}{2} \times 5 \times 7 \right) \text{ cm}^2 = \frac{35}{2} \text{ cm}^2$$

$$\text{Area of } \triangle CBD = \left( \frac{1}{2} \times 5 \times 7 \right) \text{ cm}^2 = \frac{35}{2} \text{ cm}^2$$

Since the diagonal BD divides ABCD into two triangles of equal area.

$\therefore$  ABCD is a parallelogram.

$\therefore$  Area of parallelogram = Area of  $\triangle ABD$  + Area of  $\triangle CBD$

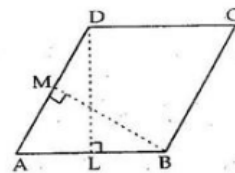
$$= \left( \frac{35}{2} + \frac{35}{2} \right) \text{ cm}^2 = \frac{70}{2} \text{ cm}^2$$

$$= 35 \text{ cm}^2$$

$\therefore$  Area of parallelogram =  $35 \text{ cm}^2$

Question 2:

Since ABCD is a parallelogram and DL is perpendicular to AB.



$$\begin{aligned} \text{So, its area} &= AB \times DL \\ &= (10 \times 6) \text{ cm}^2 \\ &= 60 \text{ cm}^2 \end{aligned}$$

Also, in parallelogram ABCD,  
 $BM \perp AD$

$\therefore$  Area of parallelogram ABCD =  $AD \times BM$

$$60 = AD \times 8 \text{ cm}$$

$$\therefore AD \times 8 = 60$$

$$\Rightarrow AD = \frac{60}{8} = 7.5 \text{ cm}$$

$$\therefore AD = 7.5 \text{ cm}$$

\*\*\*\*\* END \*\*\*\*\*