

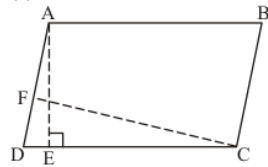


Areas of Parallelograms and Triangles Ex 15.2 Q2

Answer :

Given: Here in the question it is given that

- (1) ABCD is a parallelogram,
- (2) $AE \perp DC$ and
- (3) $CF \perp AD$
- (4) $AD = 6$ cm
- (5) $AE = 8$ cm
- (6) $CF = 10$ cm



To Find : $AB = ?$

Calculation: We know that formula for calculating the

Area of parallelogram = base \times height

Therefore,

Area of parallelogram ABCD = $DC \times AE$ (Taking base as DC and Height as AE)

Area of parallelogram ABCD = $AB \times AE$ ($AB = DC$ as opposite side of the parallelogram are equal)

Therefore, Area of parallelogram ABCD = 16×8

Area of Parallelogram ABCD = $AB \times 8$ (1)

Taking the base of Parallelogram ABCD as AD we get

Area of parallelogram ABCD = $AD \times CF$ (taking base as AD and height as CF)

Area of parallelogram ABCD = 6×10 (2)

Since equation 1 and 2 both represent the Area of the same Parallelogram ABCD , both should be equal.

Hence equation 1 is equal to equation 2

Which means that,

$$AB \times 8 = 6 \times 10$$

$$AB = \frac{6 \times 10}{8}$$

$$AB = \boxed{7.5 \text{ cm}}$$

Hence we got the measure of AB equal to $\boxed{7.5 \text{ cm}}$

***** END *****