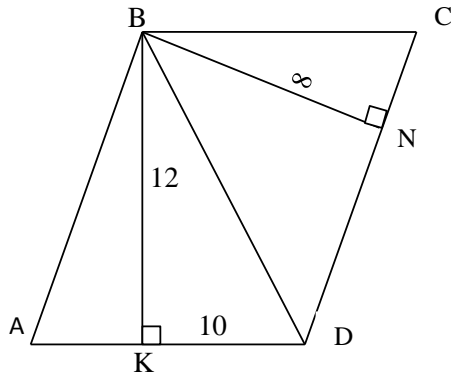


THE BASE AND THE CORRESPONDING ALTITUDE OF A PARALLELOGRAM ARE 10CM AND 12 CM RESPECTIVELY. IF THE OTHER ALTITUDE IS 8CM, FIND THE LENGTH OF THE OTHER PAIR OF PARALLEL SIDE



Let $AB=10$ cm, $BK=12$ cm, $BN=8$ cm.

Take a look at triangles $\triangle ABD$ and $\triangle CDB$. They are equal ($AB=CD$, $AD=CB$, BD). It means that their areas are equal too.

$$S_{\triangle ABD} = \frac{1}{2} \cdot AD \cdot BK = \frac{1}{2} \cdot 12 \cdot 10 = 60 \text{ cm}^2$$

$$S_{\triangle CDB} = \frac{1}{2} \cdot BN \cdot CD = \frac{1}{2} \cdot 8 \cdot CD = 4CD$$

$$S_{\triangle CDB} = S_{\triangle ABD}$$

$$4CD = 60, \quad CD = BA = \frac{60}{4} = 15 \text{ cm.}$$