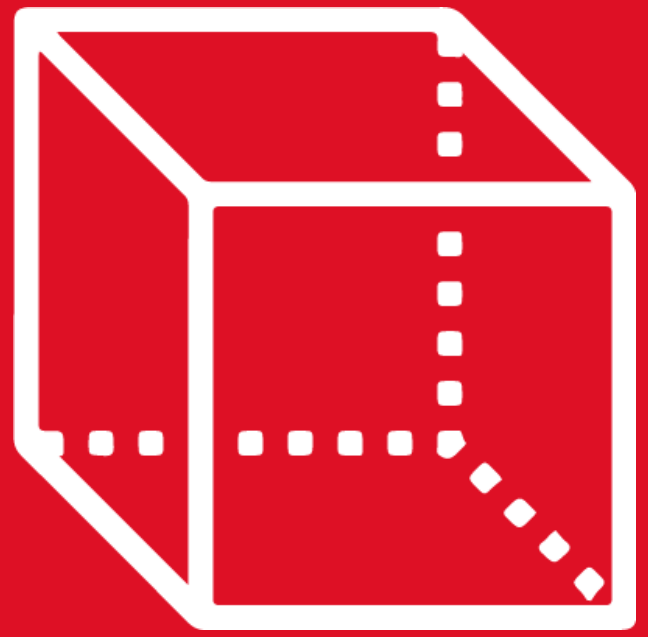
GEOMETRÍA

Tomo 3



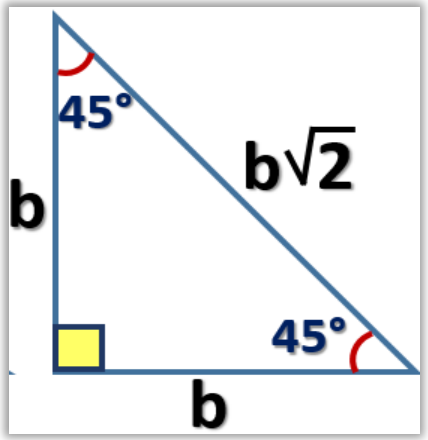
3st

SECONDARY

SACO OLIVEROS

Retroalimentación

1. Calcule K. Si: $K = \frac{AC+CD}{BD}$



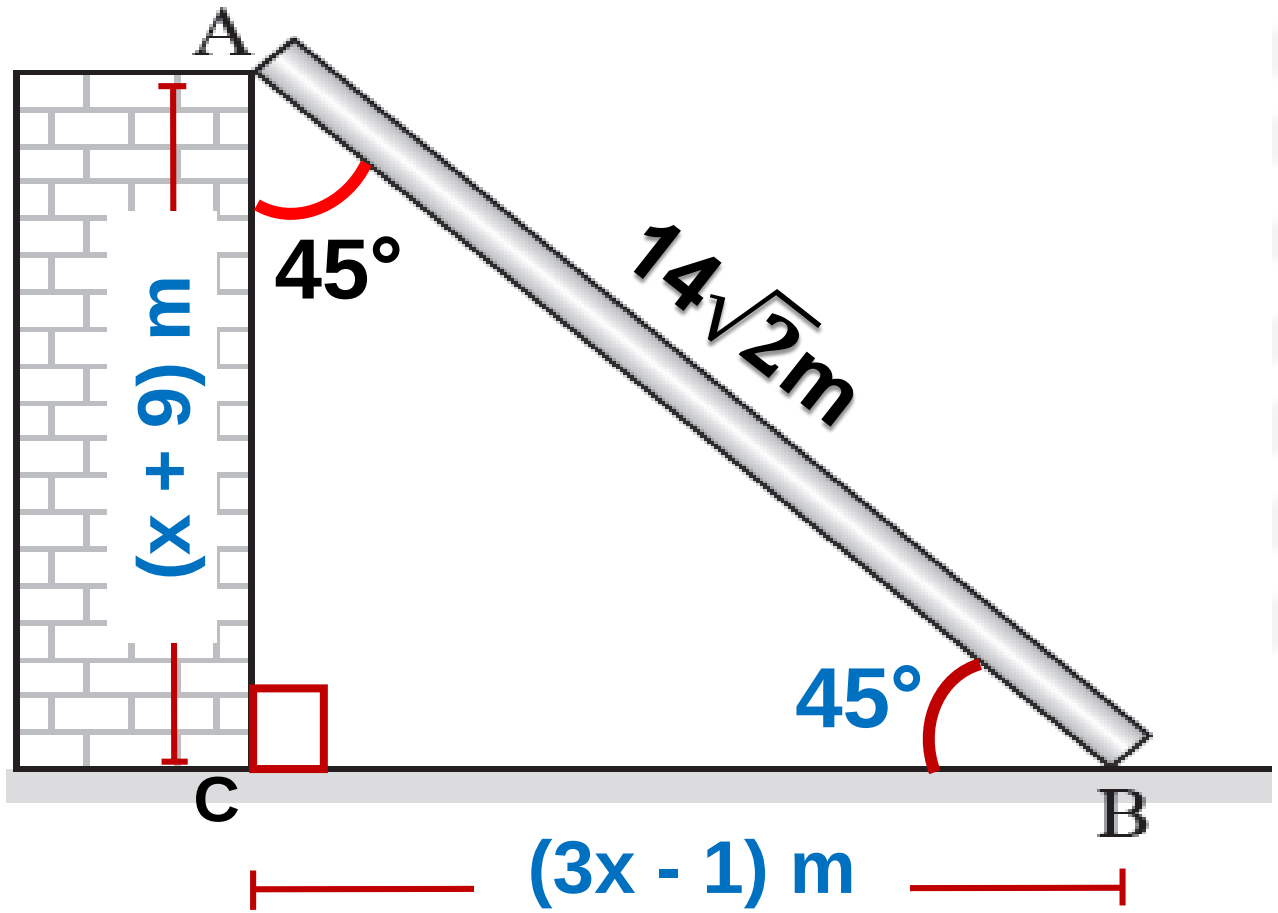
Nos piden

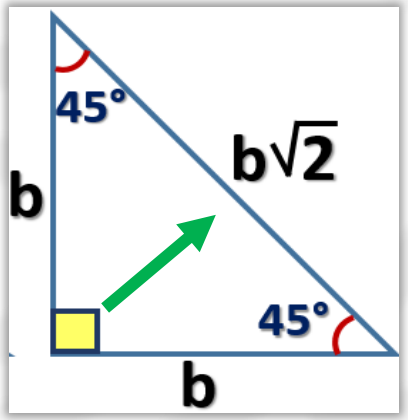
$$K = \frac{AC+CD}{BD}$$

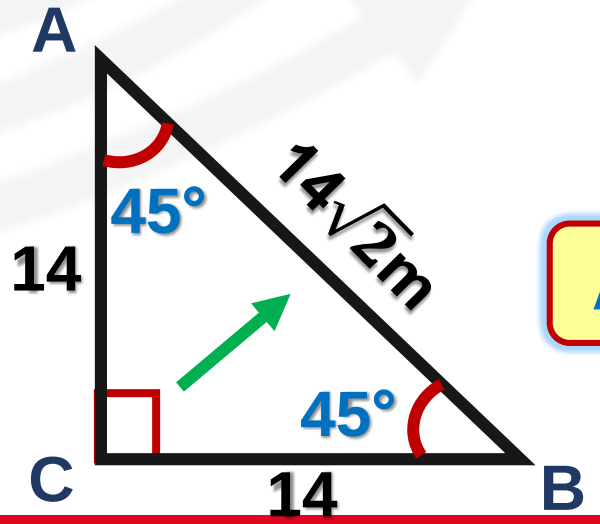
$$K = \frac{10+8}{6}$$

K = 3

2. Se observa una madera en cuyos extremos están situados los puntos A y B. Si dicha madera forma con el piso un ángulo de 45°, la altura de la pared tiene una medida de (x + 9)m y la distancia del punto B a la pared es de (3x - 1)m, ¿cuánto mide la madera?







$3x - 1 = x + 9$

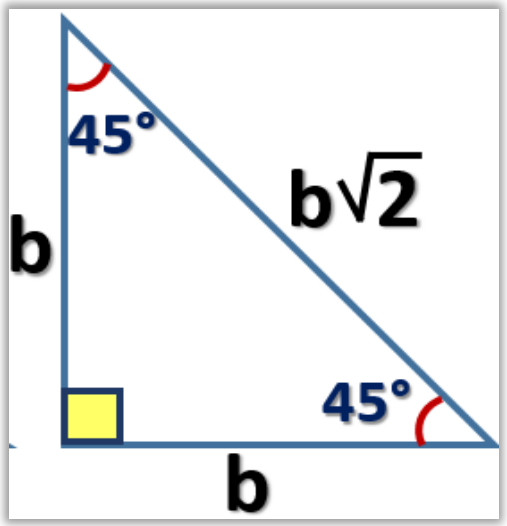
$2x = 10$

$x = 5$

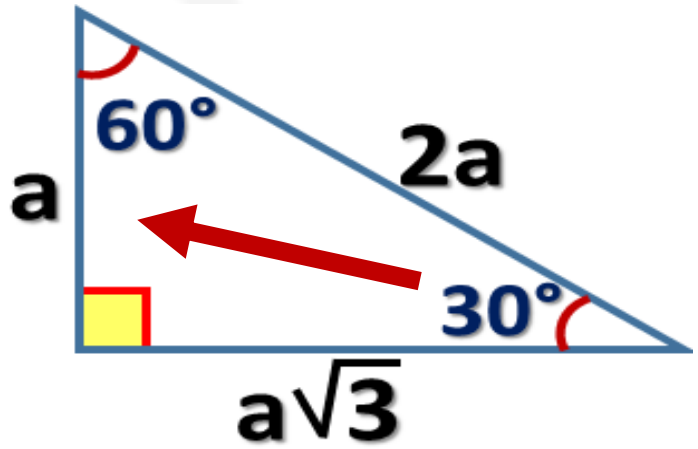
Nos piden

$AB = 14\sqrt{2}$ m

3. En la figura, calcule AC.



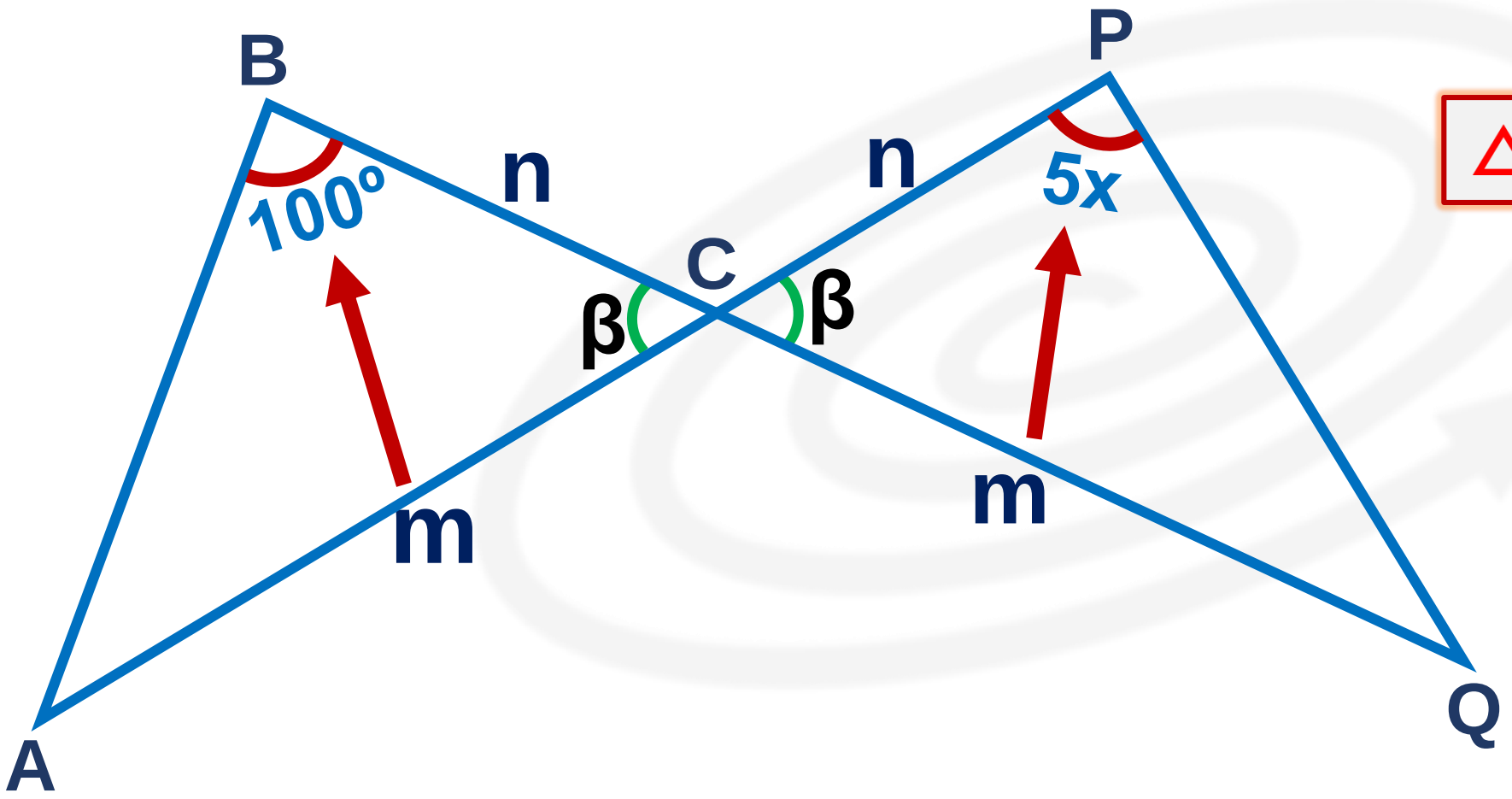
- Trazamos la altura $\overline{CH}$.



Nos piden

AC = 6

4. En la figura, BC = CP y AC = CQ. Calcule x.



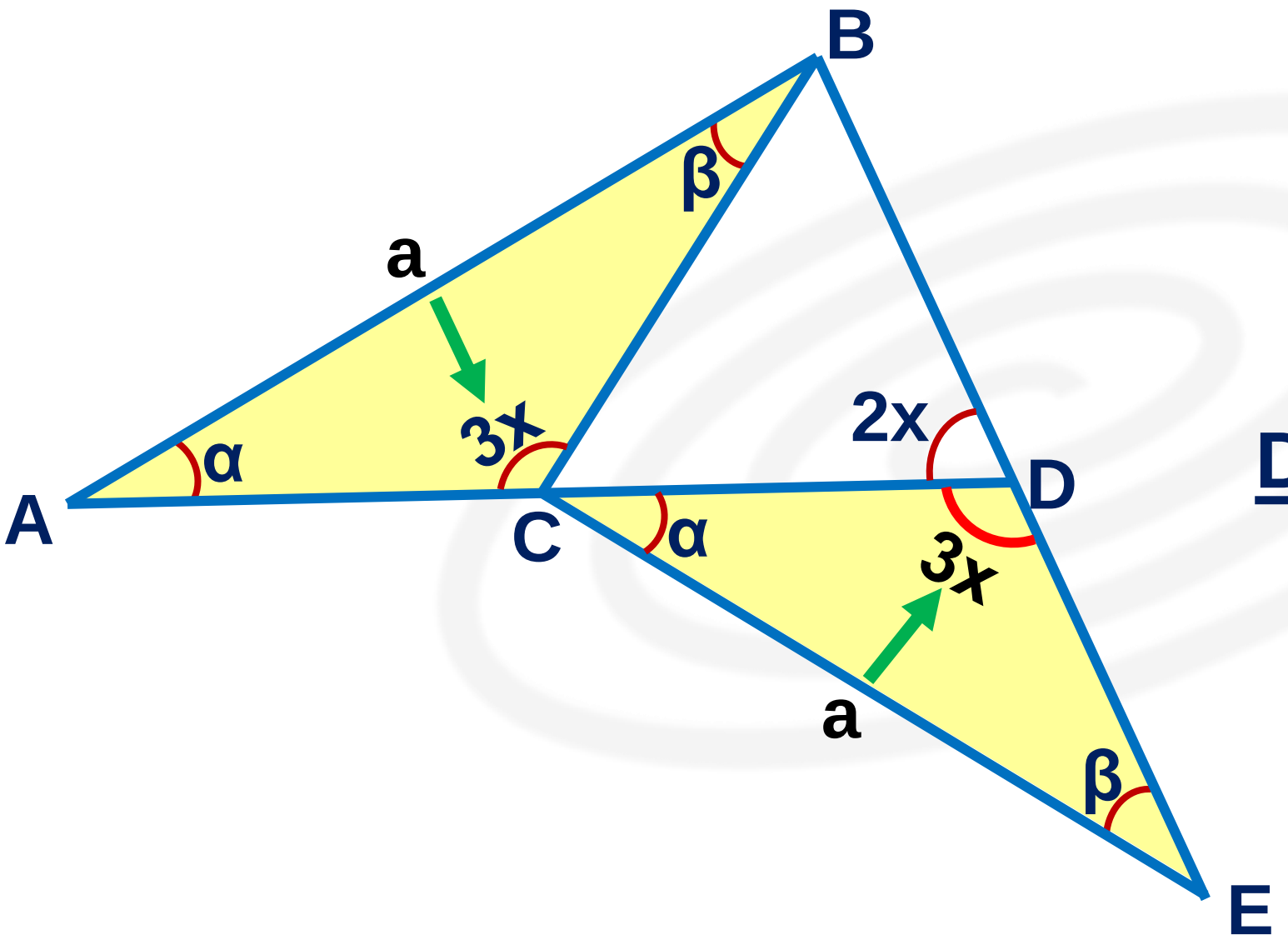
$\triangle ACB \cong \triangle QCP$

(L-A-L)

$5x = 100°$

$x = 20°$

5. En la figura AB = CE, calcule x.



$\triangle ABC \cong \triangle CED$

(A-L-A)

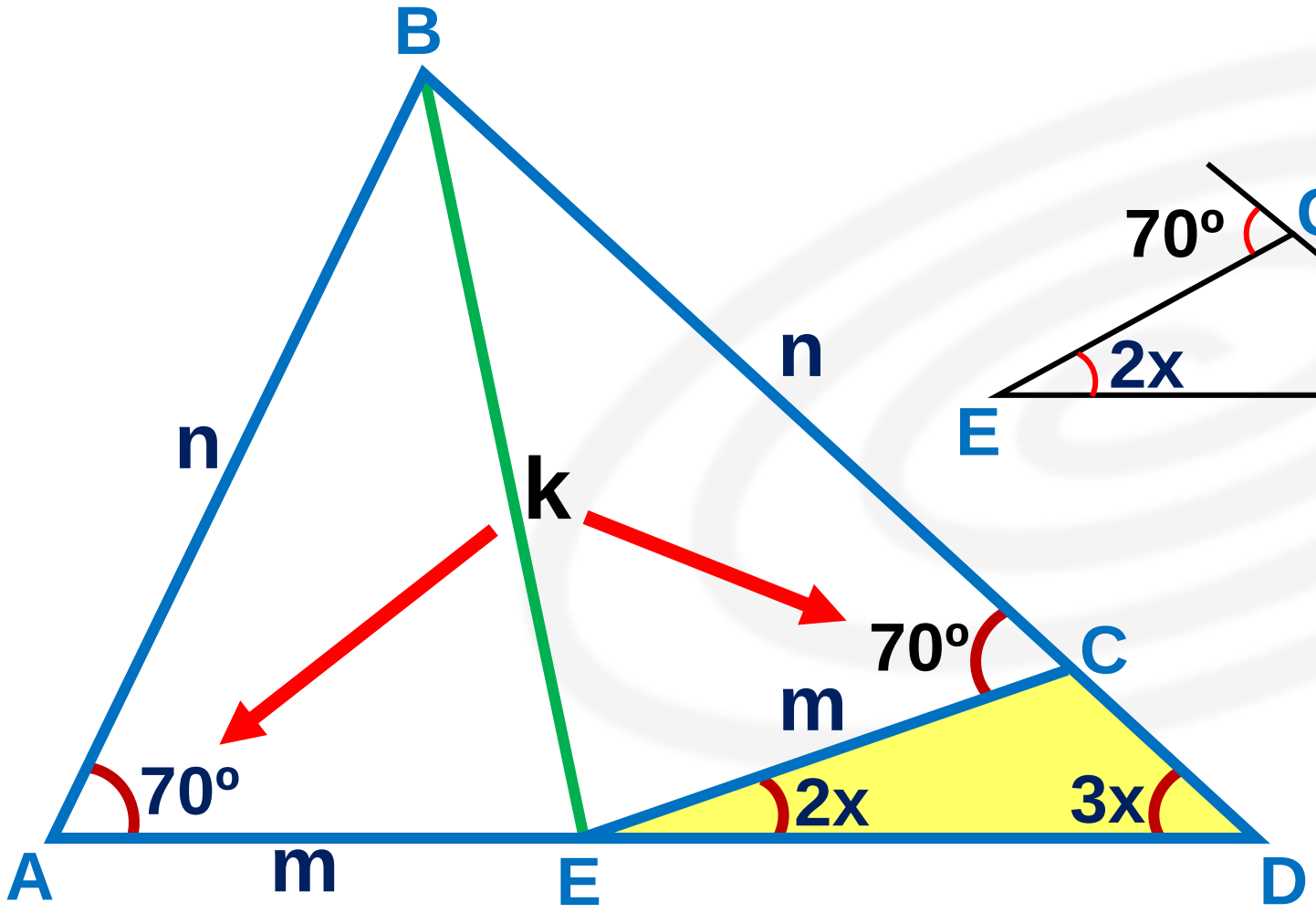
Del gráfico

$2x + 3x = 180°$

$5x = 180°$

$x = 36°$

6. En la figura AB = BC y AE = CE, calcule x.



- Trazamos $\overline{BE}$

$\triangle ABE \cong \triangle CBE$

(L-L-L)

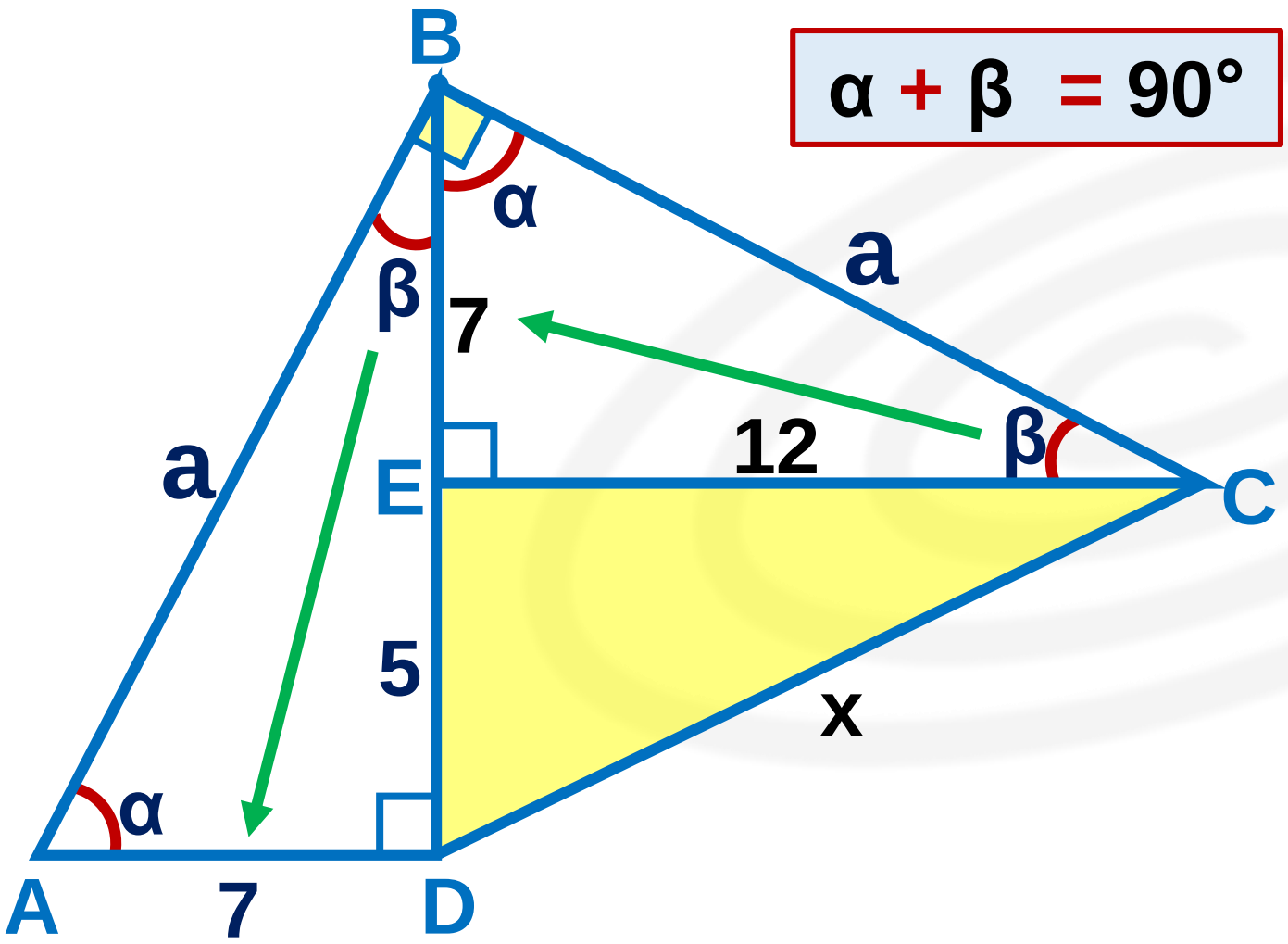
- Del gráfico :

$2x + 3x = 70°$

$5x = 70°$

$x = 14°$

7. En la figura, AB = BC, calcule CD.



$\alpha + \beta = 90°$

$\triangle ABD \cong \triangle BCE$

(A-L-A)

- $AD = BE = 7$
- $EC = BD$

$EC = 7 + 5$

$EC = 12$

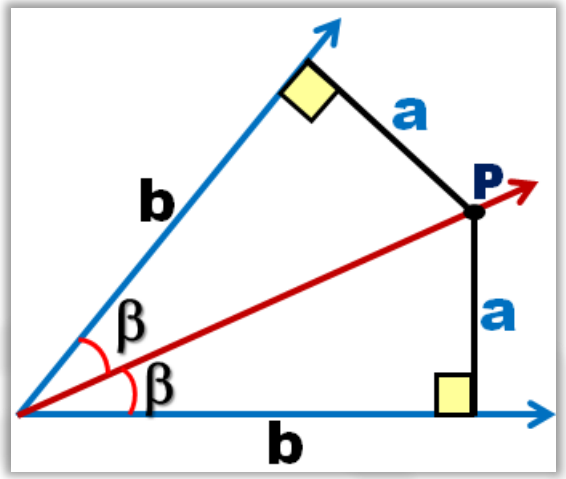
$\triangle CED$ T. Pitágoras

$x^2 = 5^2 + 12^2$

$x^2 = 169$

$x = 13$

8. En la figura, halle el valor de x.



Del gráfico

- BP = PH = 8
- AB = AH = 14

PMH: T. Pitágoras

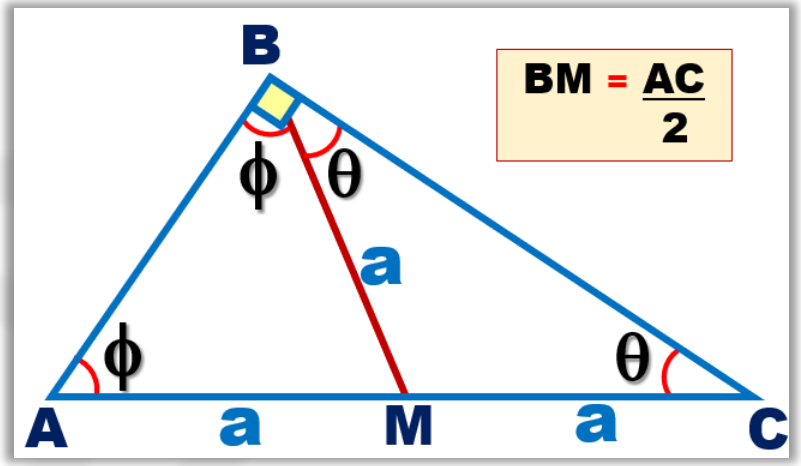
$x^2 = 8^2 + 15^2$

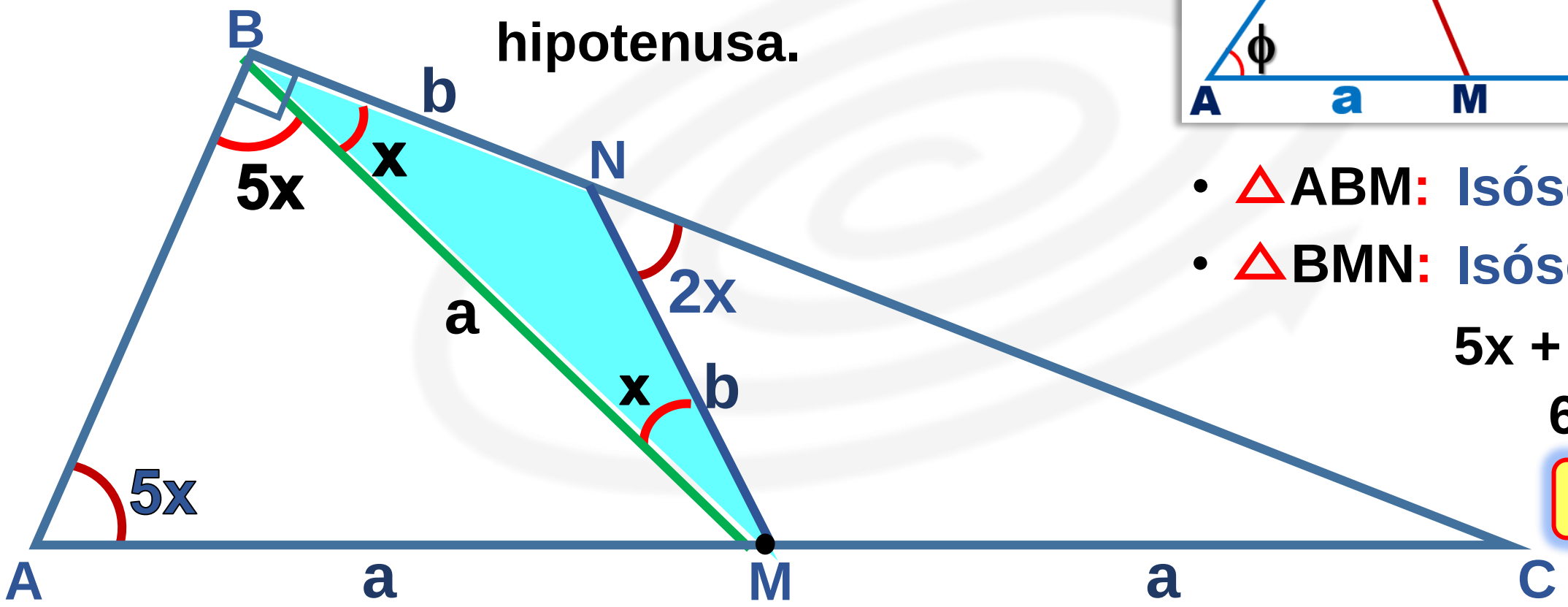
$x^2 = 289$

x = 17

9. En la figura, halle el valor de x.

- Trazamos $\overline{BM}$.
- $\overline{BM}$: mediana relativa a la hipotenusa.





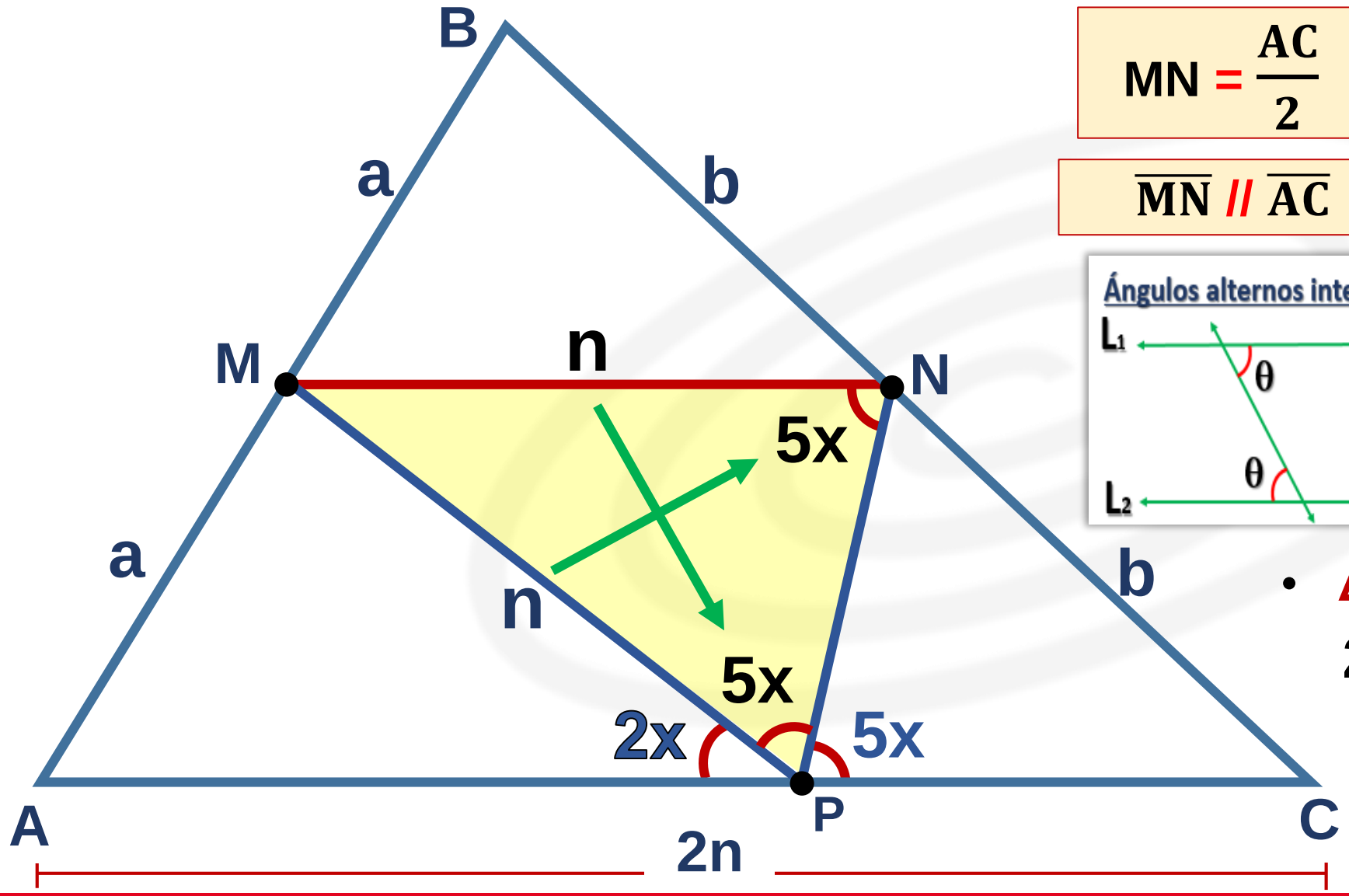
- △ABM: Isósceles
- △BMN: Isósceles

$5x + x = 90^\circ$

$6x = 90^\circ$

$x = 15°$

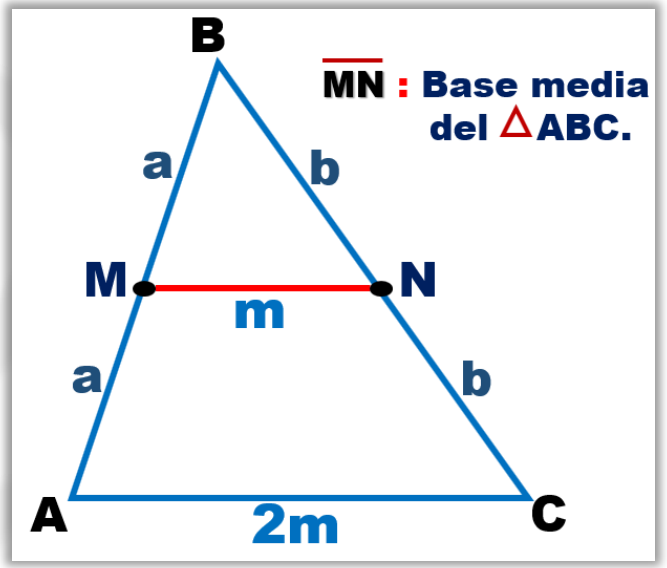
10. En la figura, halle el valor de x.



- Trazamos $\overline{MN}$ (Base media)

$$MN = \frac{AC}{2}$$

$$\overline{MN} \parallel \overline{AC}$$



- Δ MNP: Isósceles

$$2x + 5x + 5x = 180°$$

$$12x = 180°$$

$$x = 15°$$