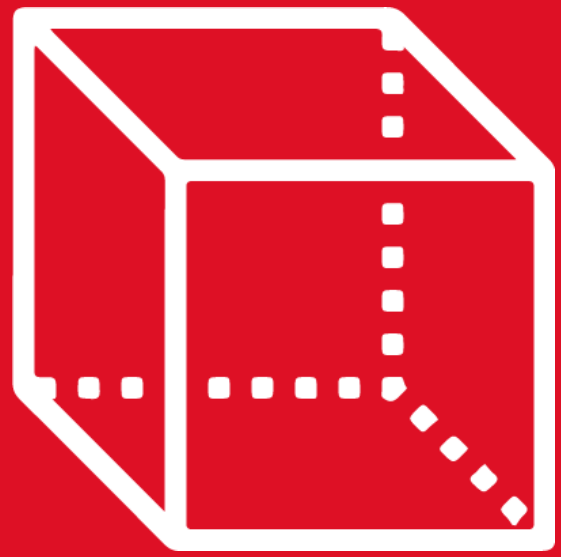
GEOMETRÍA

Tomo 3

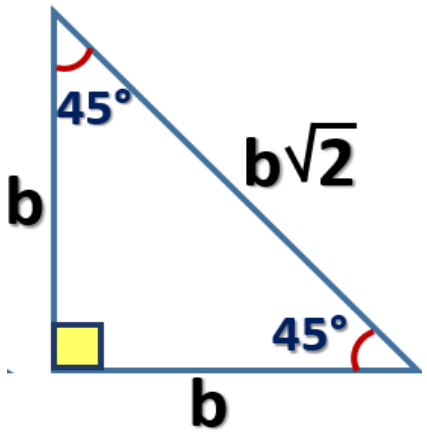


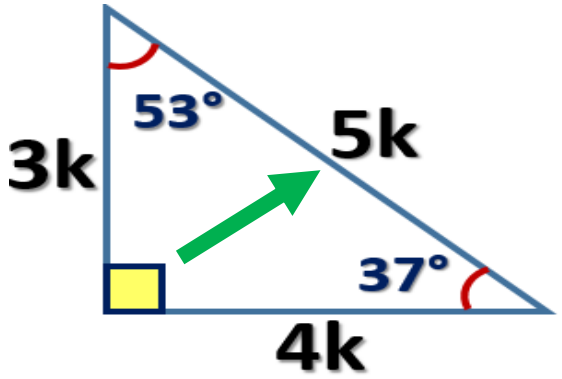
3rd
SECONDARY

Helocoasesoría

SACO OLIVEROS

1. En la figura, calcule AC.





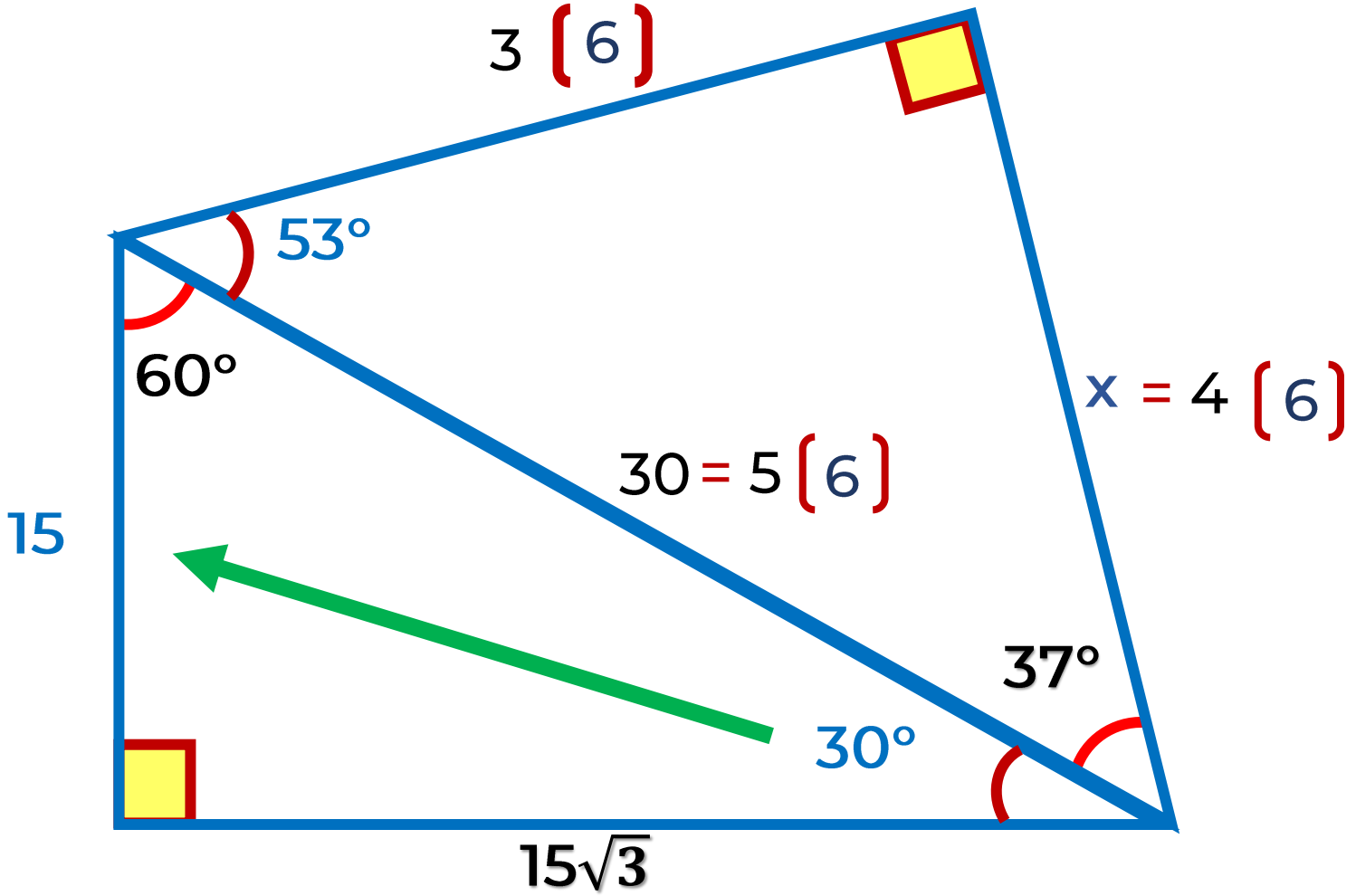
Resolución

- Nos piden

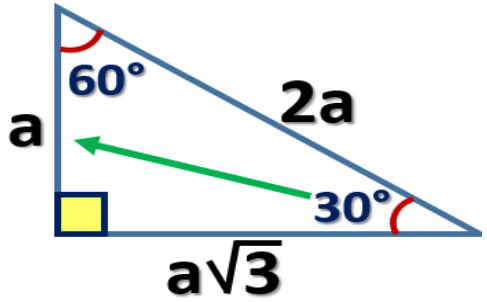
AC = 16 + 12

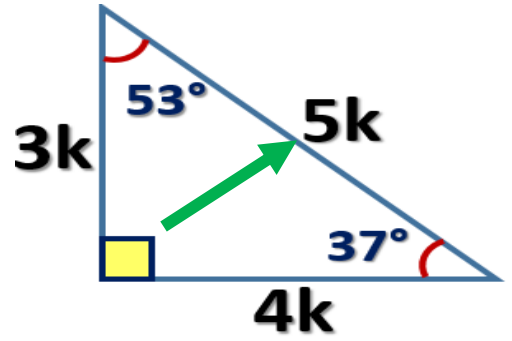
AC = 28

2. En la figura, calcule x.



Resolución

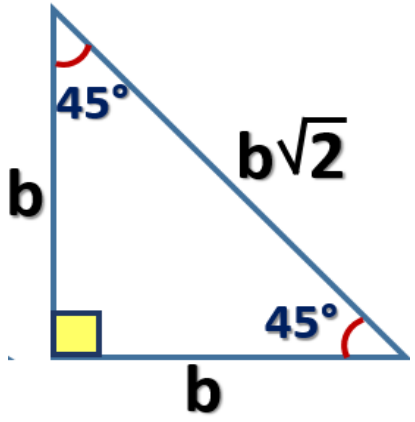




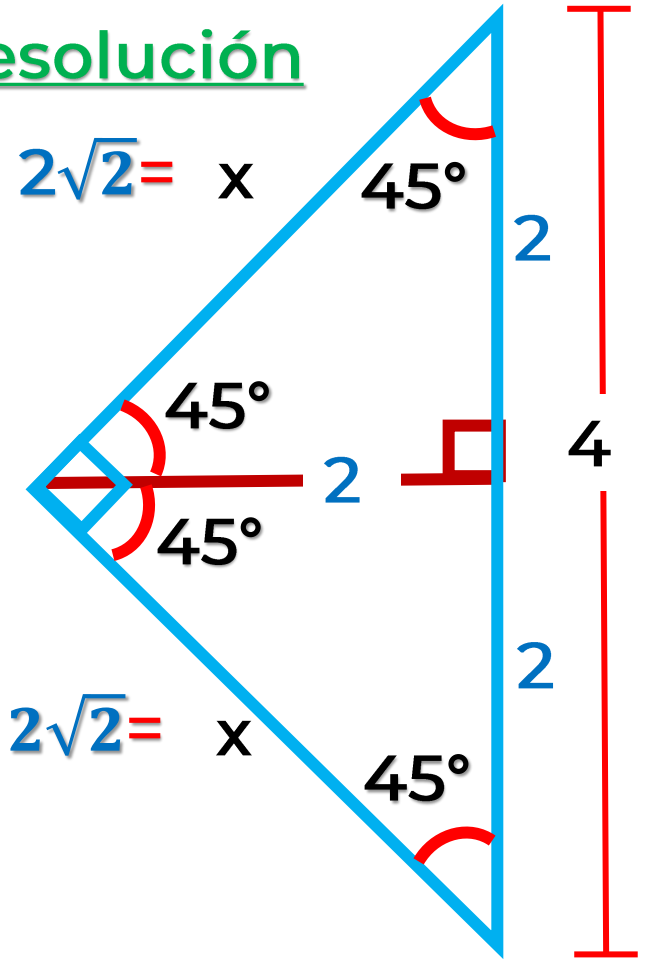
$x = 4\,(6)$

$x = 24$

3. En la figura, calcule x.

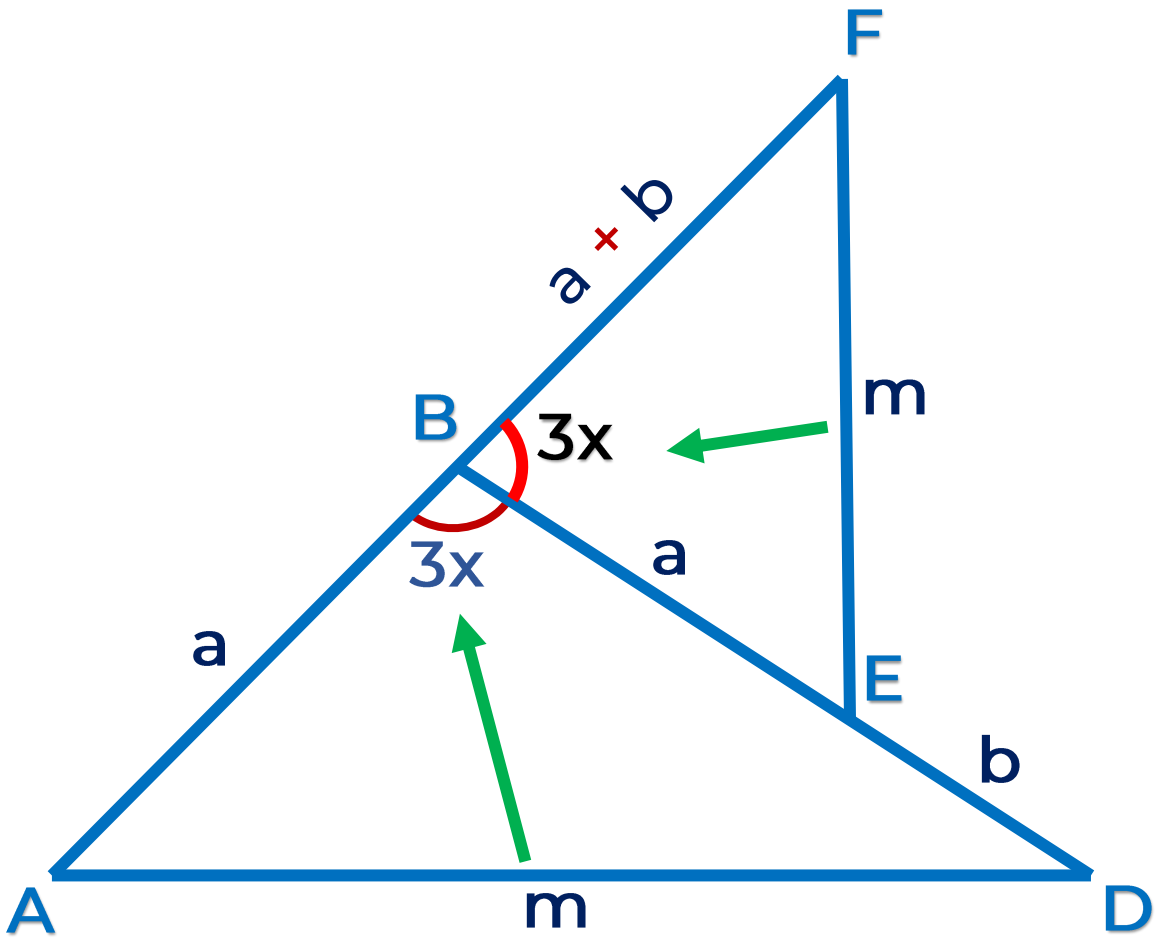


Resolución



x = 2√2

4. En la figura, calcular x.



Resolución

$\triangle ABD \cong \triangle EBF$

L-L-L

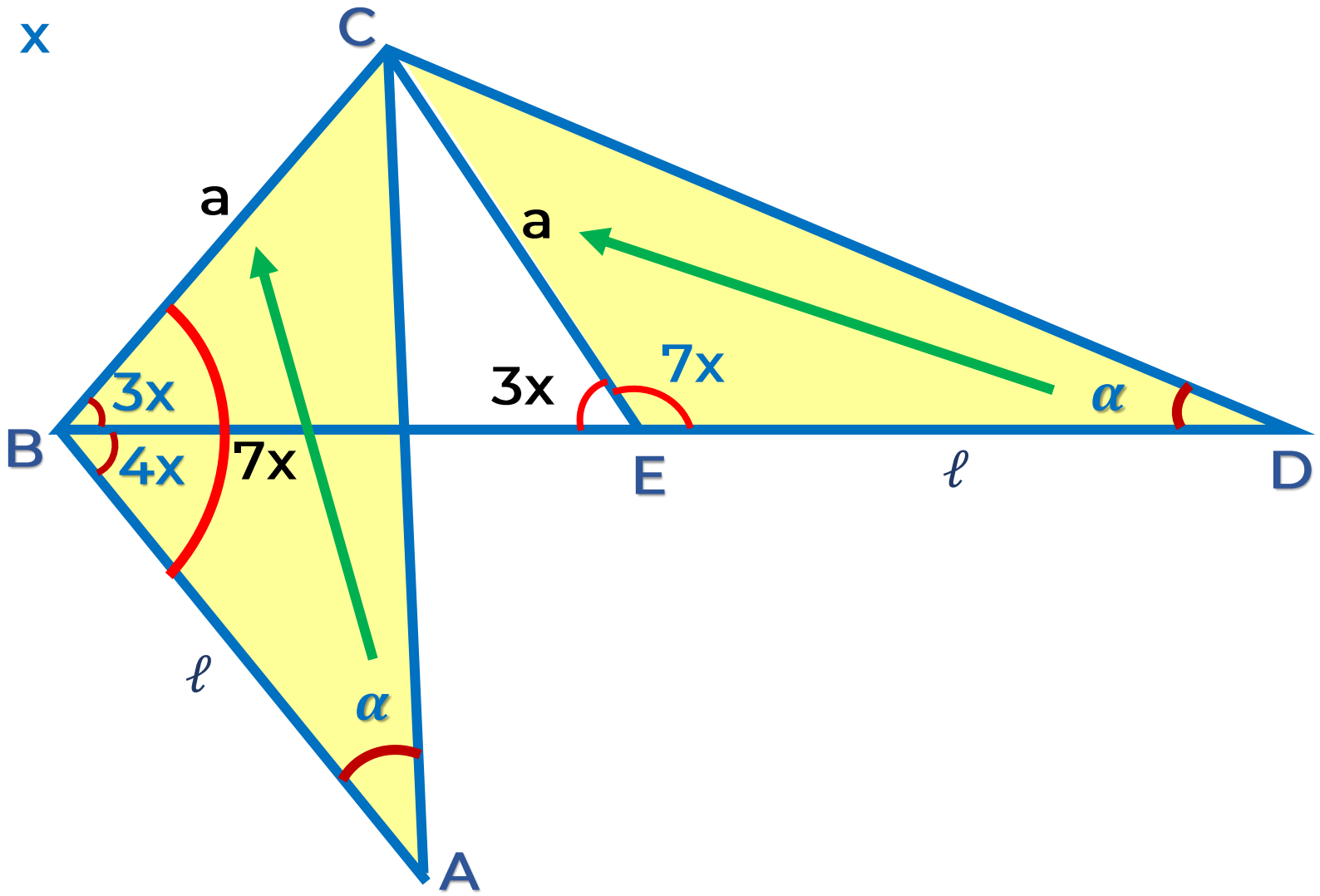
Del gráfico :

$3x + 3x = 180°$

$6x = 180°$

$x = 30°$

5. En la figura, AB = ED. Calcule x



Resolución

- $\triangle ABC \cong \triangle DEC$

  A-L-A

- El $\triangle$ BCE: Isósceles

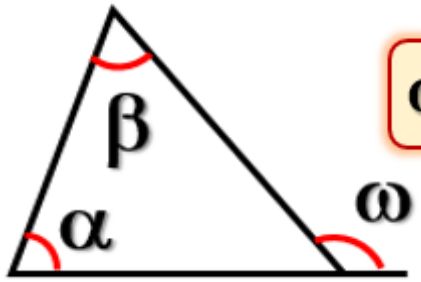
  Del gráfico

$$3x + 7x = 180°$$

$$10x = 180°$$

$$x = 18°$$

6. En la figura, AB = CE. Calcule x



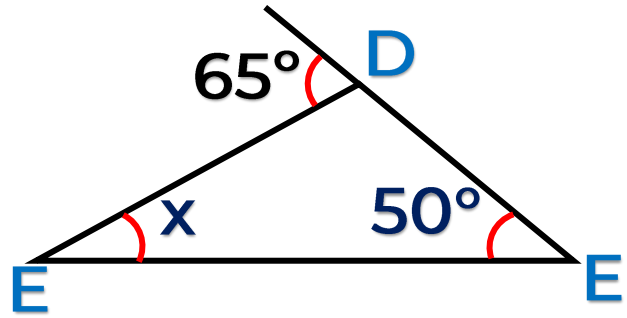
$\omega = \alpha + \beta$

Resolución

- $\triangle$ BCD : ISÓSCELES

  CB = CD = b

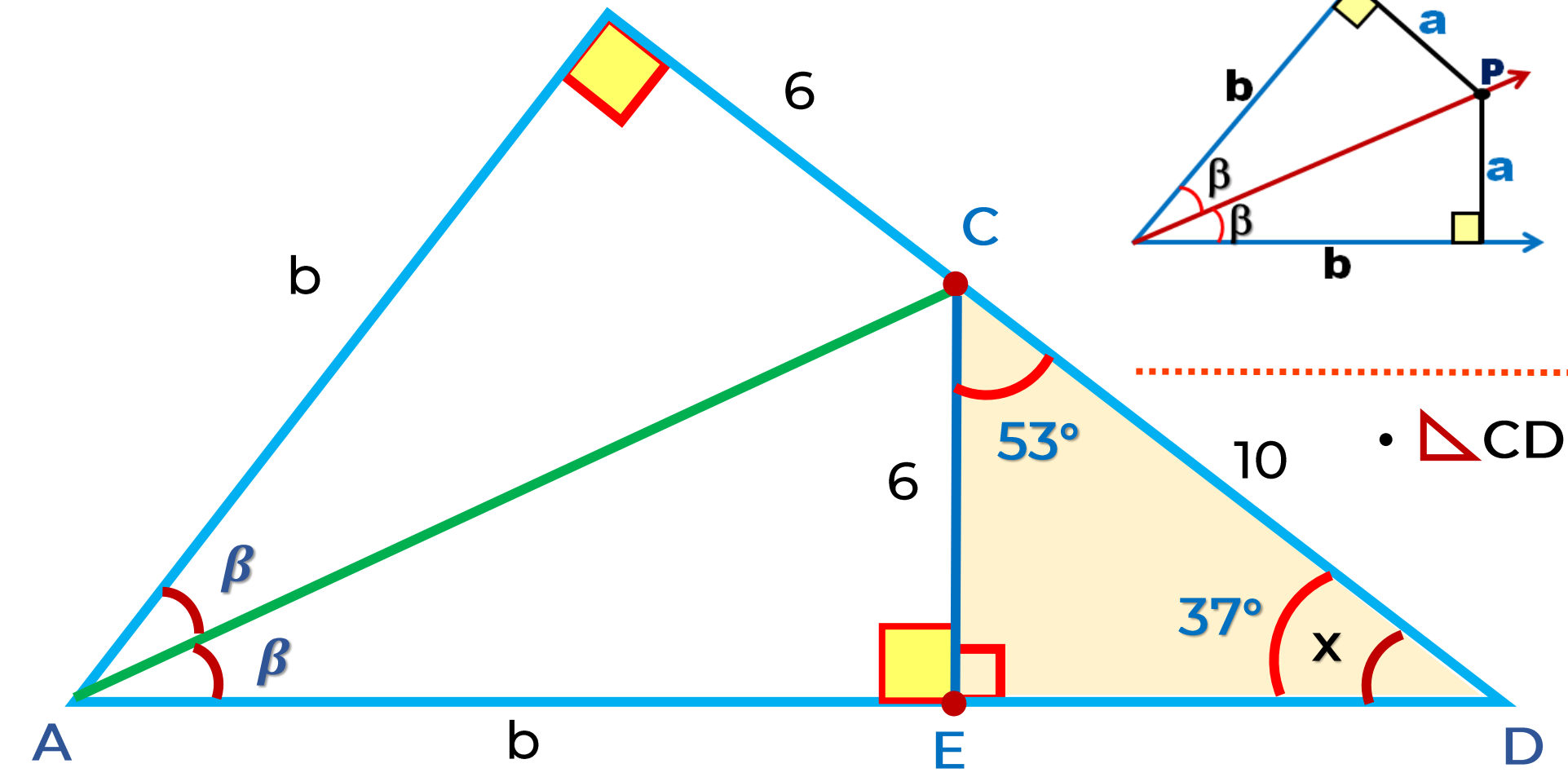
- $\triangle$ ABC $\cong$ $\triangle$ ECD (L-A-L)

- 

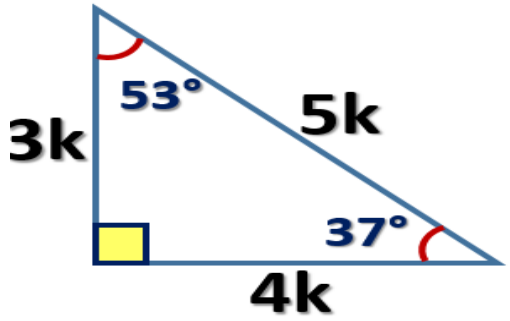
$65° = 50° + x$

$x = 15°$

7. En un triángulo rectángulo ABD, recto en B, se traza la bisectriz interior $\overline{AC}$. Si BC = 6 y CD = 10, halle m<ADC.



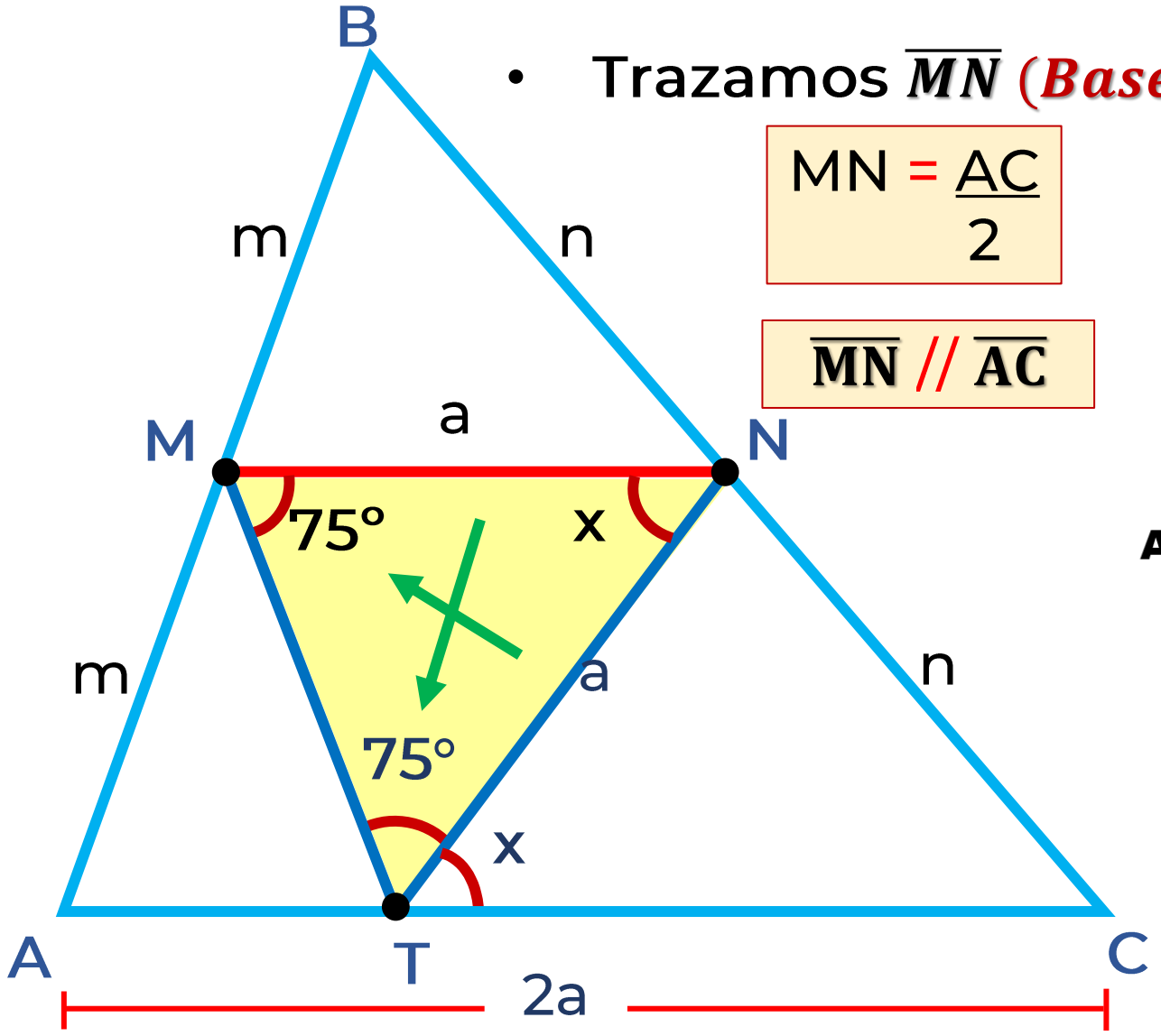
Resolución



- $\triangle$CDE: Notable de 37° y 53°

$x = 37°$

8. En la figura, calcule *x*.

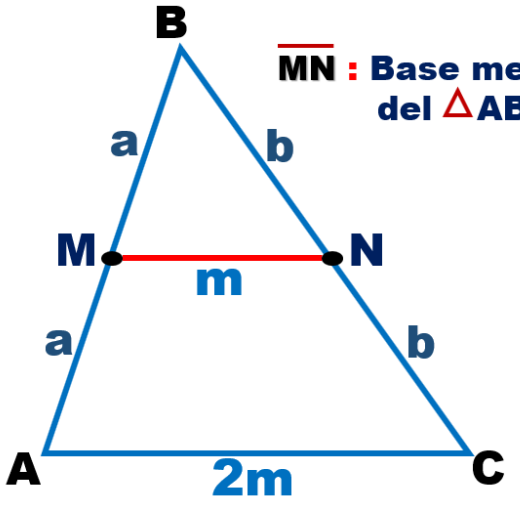


Resolución

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

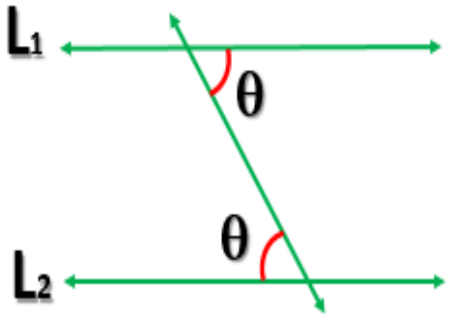
$$MN = \frac{AC}{2}$$

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



$\overline{MN}$: Base media del $\triangle ABC$.

Ángulos alternos internos



- $\triangle MNT$: Isósceles

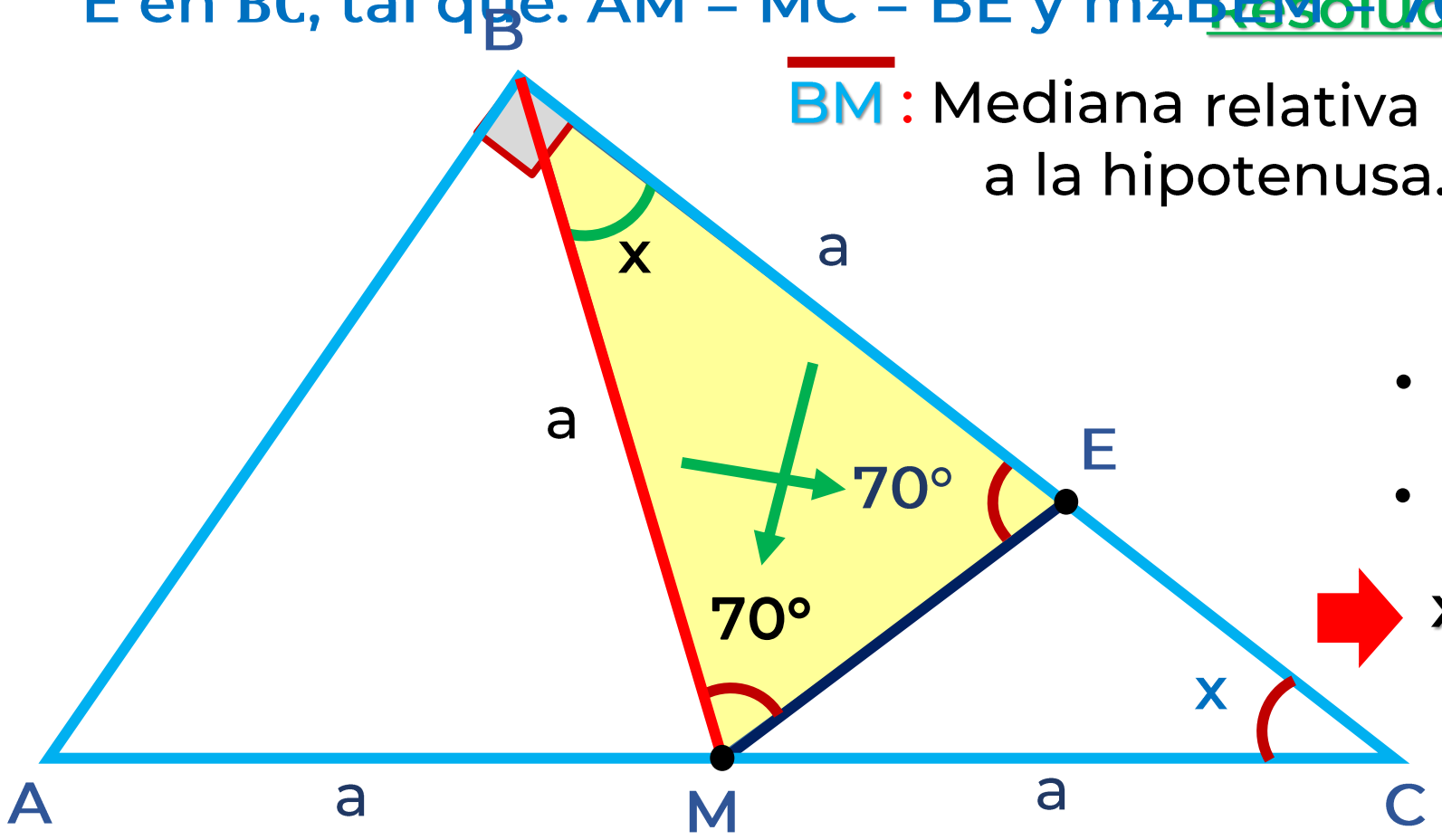
$$x + 75° + 75° = 180°$$

$$x + 150° = 180°$$

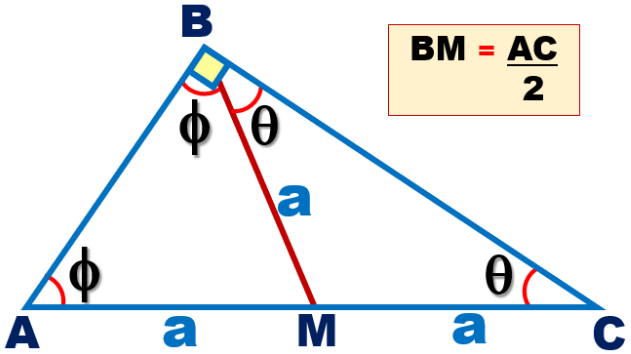
$$x = 30°$$

9. En un triángulo rectángulo ABC recto en B, se ubican los puntos M en $\overline{AC}$ y
E en $\overline{BC}$, tal que: AM = MC = BE y m∠BEM = 70°. Calcula la m∠BCA

Resolución



$\overline{BM}$: Mediana relativa a la hipotenusa.



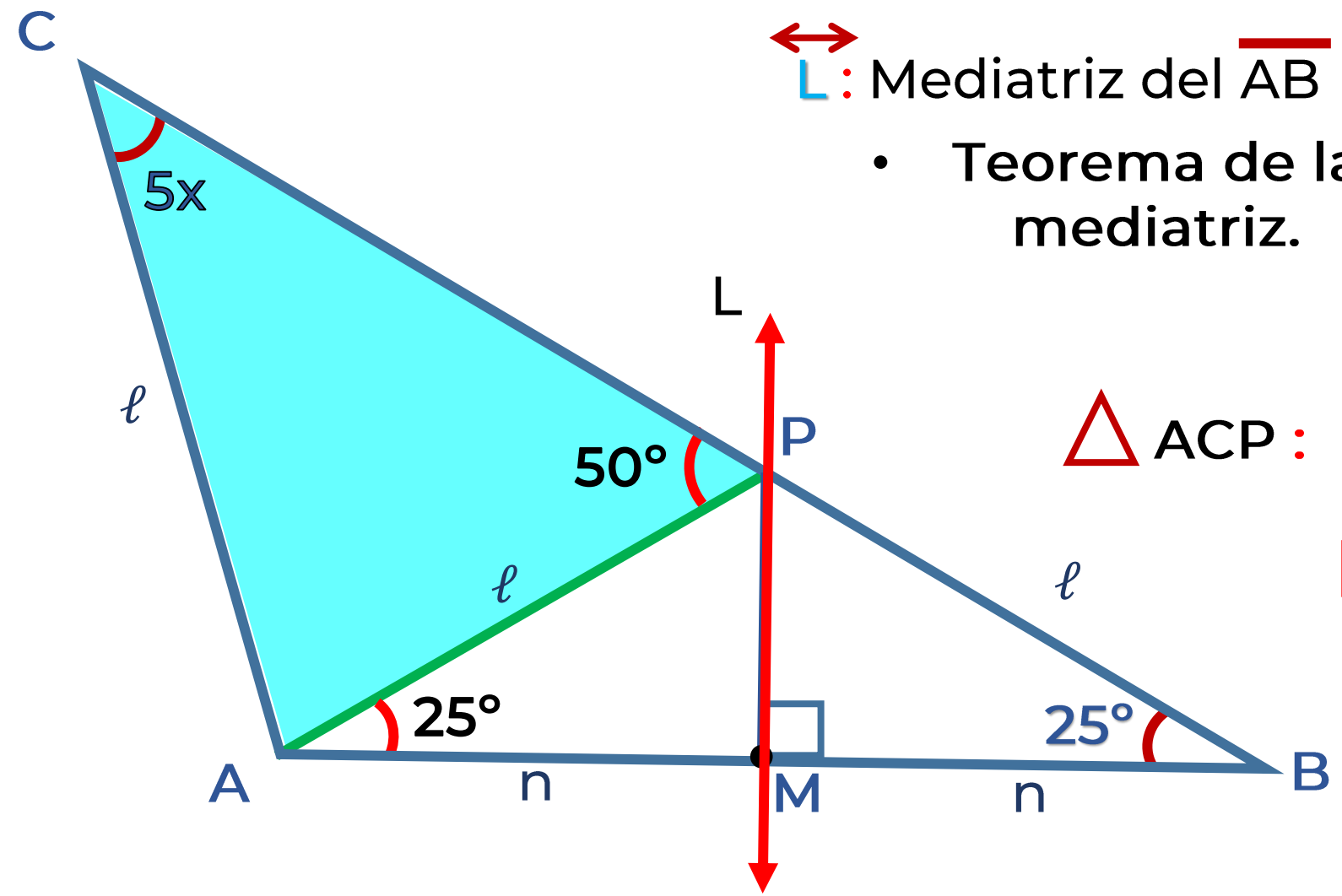
- △BCM : Isósceles
- △BEM : Isósceles

$x + 70° + 70° = 180°$

$x + 140° = 180°$

$x = 40°$

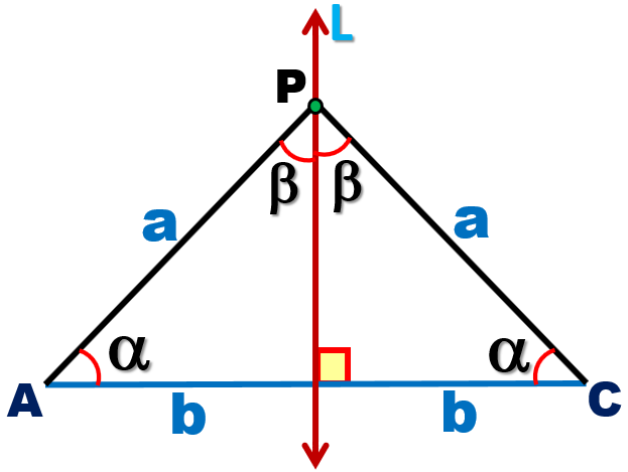
10. En la figura, calcule x.



Resolución

$\overleftrightarrow{L}$: Mediatriz del $\overline{AB}$

- Teorema de la mediatriz.



$\triangle ACP$: Isósceles

$5x = 50°$

$x = 10°$