



GEOMETRÍA

Capítulo 1

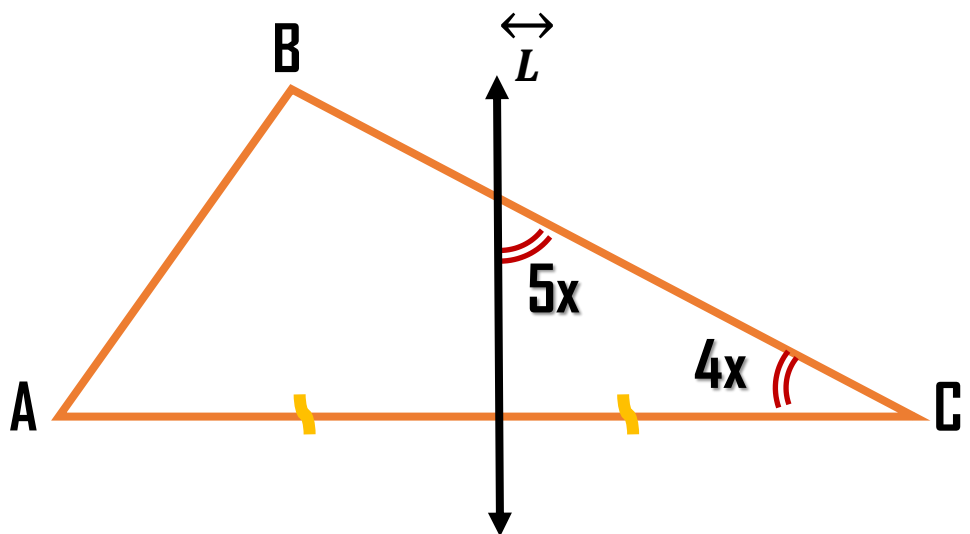
1st
SECONDARY

Repaso



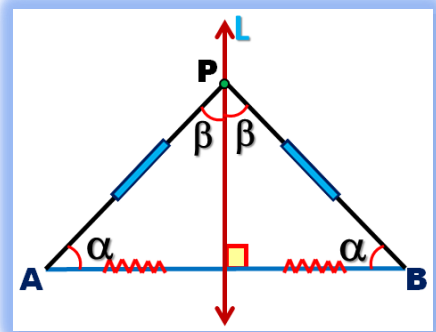
 **SACO OLIVEROS**

1. Si L es mediatriz de \overline{AC} , halle el valor de x .

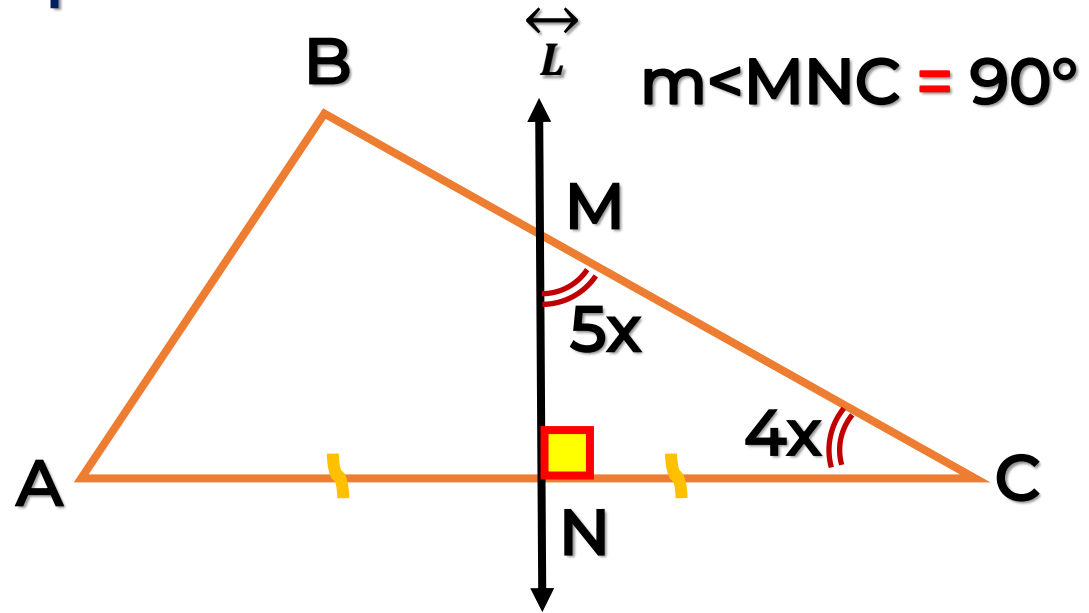


Resolución \vec{L} es mediatriz de \overline{AC}

Teorema de la mediatriz.



Se pide: x



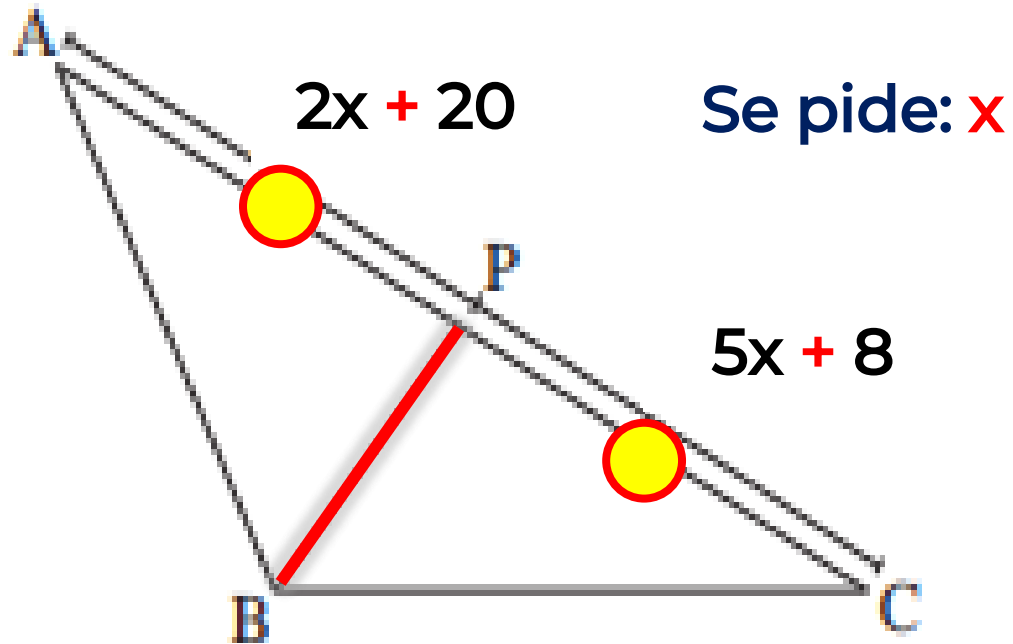
En el $\triangle MNC$

$$5x + 4x = 90^\circ$$
$$9x = 90^\circ$$

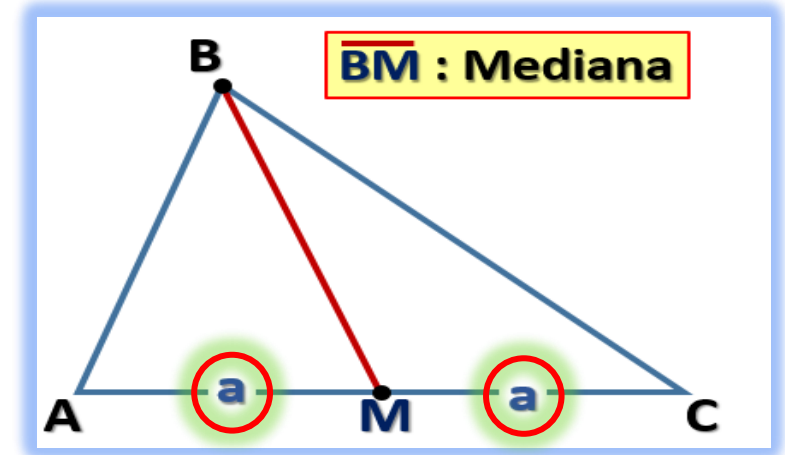
$x = 10^\circ$



2. Halle el valor de x , sabiendo que \overline{BP} es mediana.



Si \overline{BP} es mediana



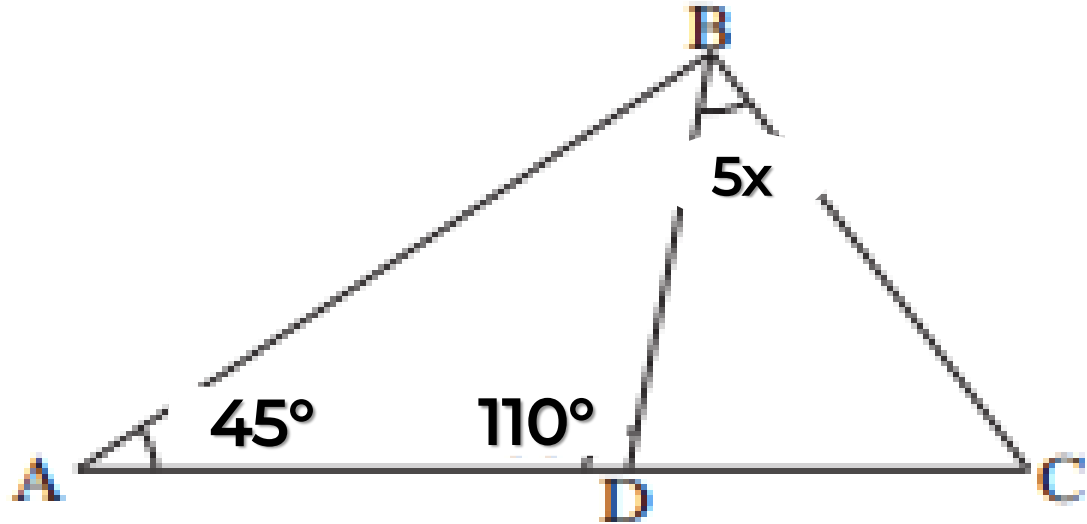
$$AP = PC$$

$$2x + 20 = 5x + 8$$

$$12 = 3x$$

$$x = 4$$

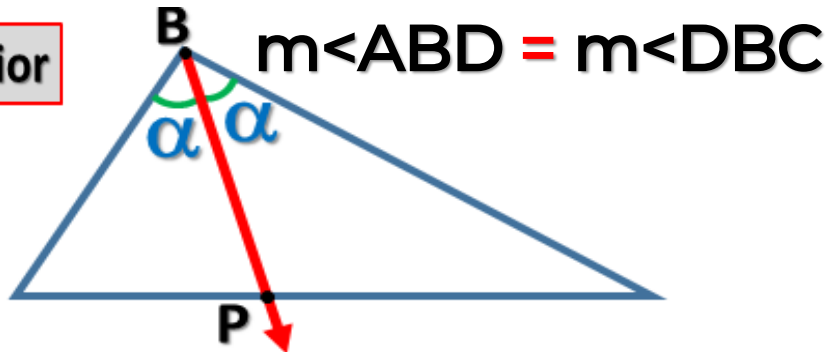
3. Si \overline{BD} es bisectriz, halle el valor de x .



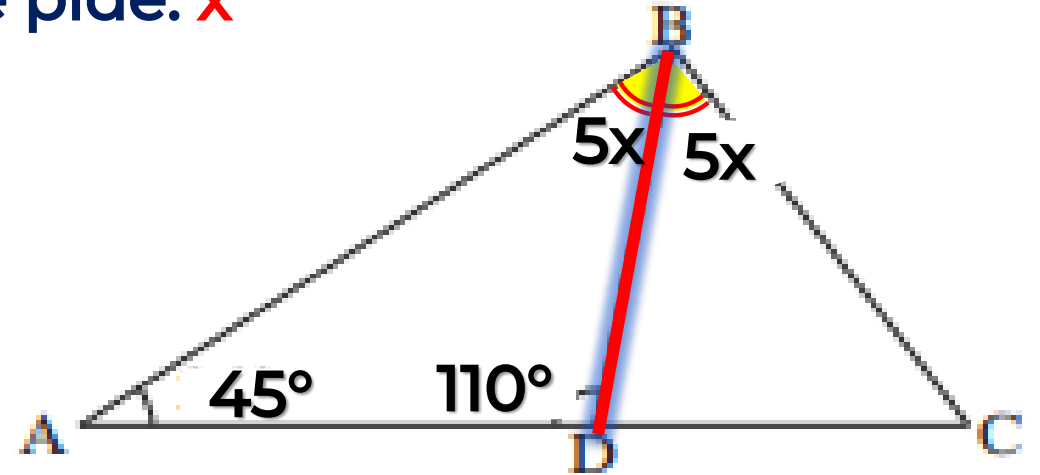
Resolución

\overline{BD} es bisectriz

\overrightarrow{BP} : Bisectriz Interior



Se pide: x



En el $\triangle ABD$

$$45^\circ + 110^\circ + 5x = 180^\circ$$

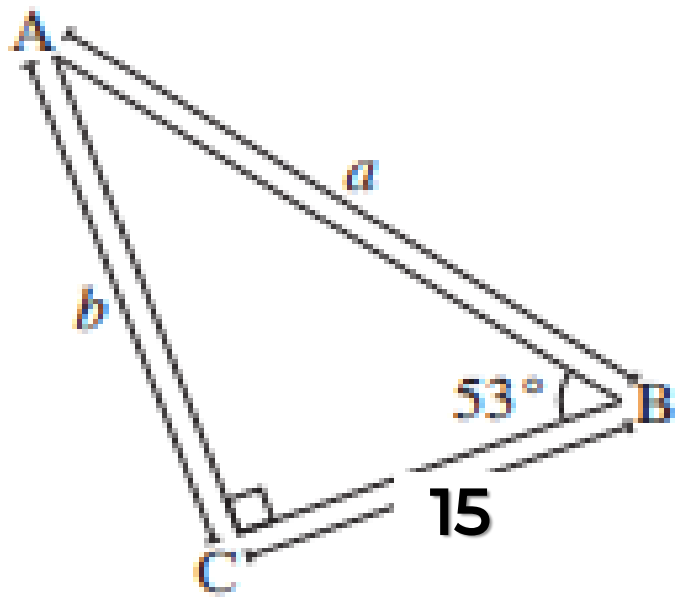
$$155^\circ + 5x = 180^\circ$$

$$5x = 25^\circ$$

$$x = 5^\circ$$

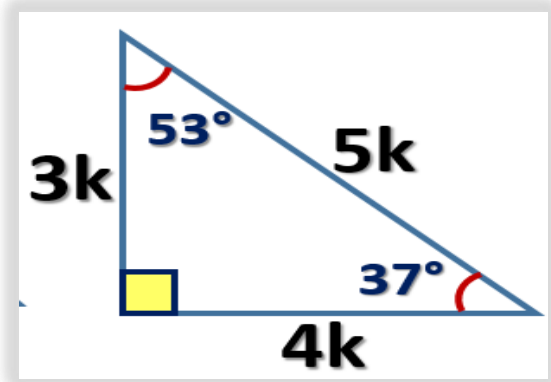


4. Calcule la diferencia de a y b

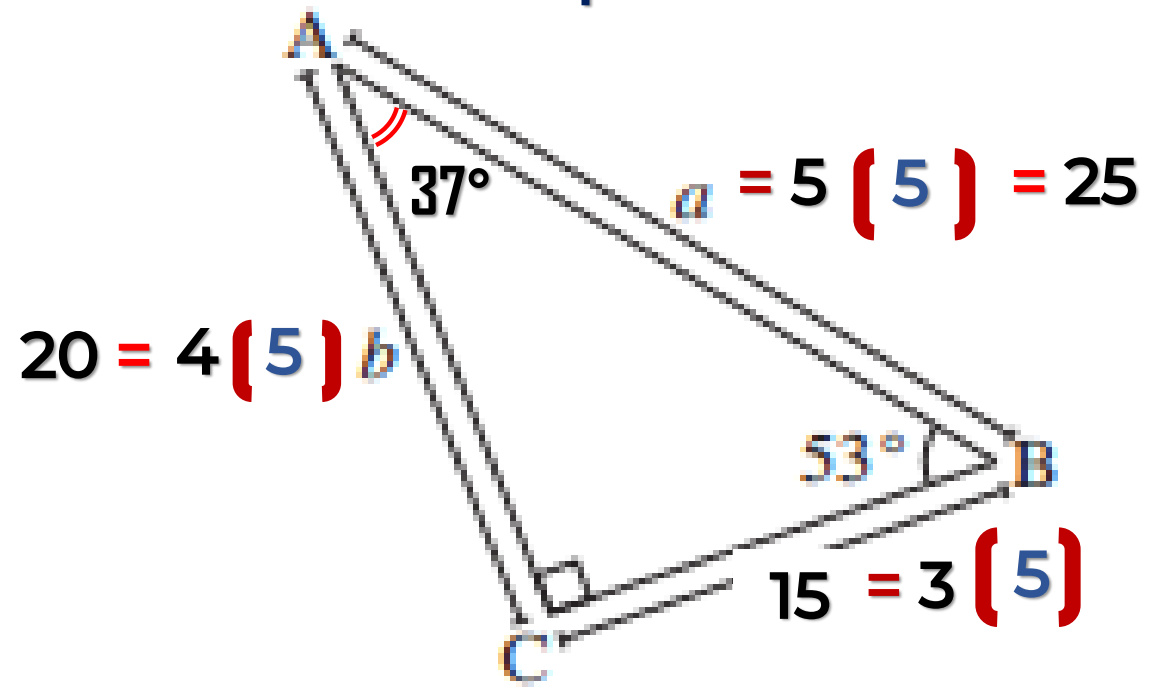


Resolución

Δ ACB (53° y 37°)



Se pide: **a - b**

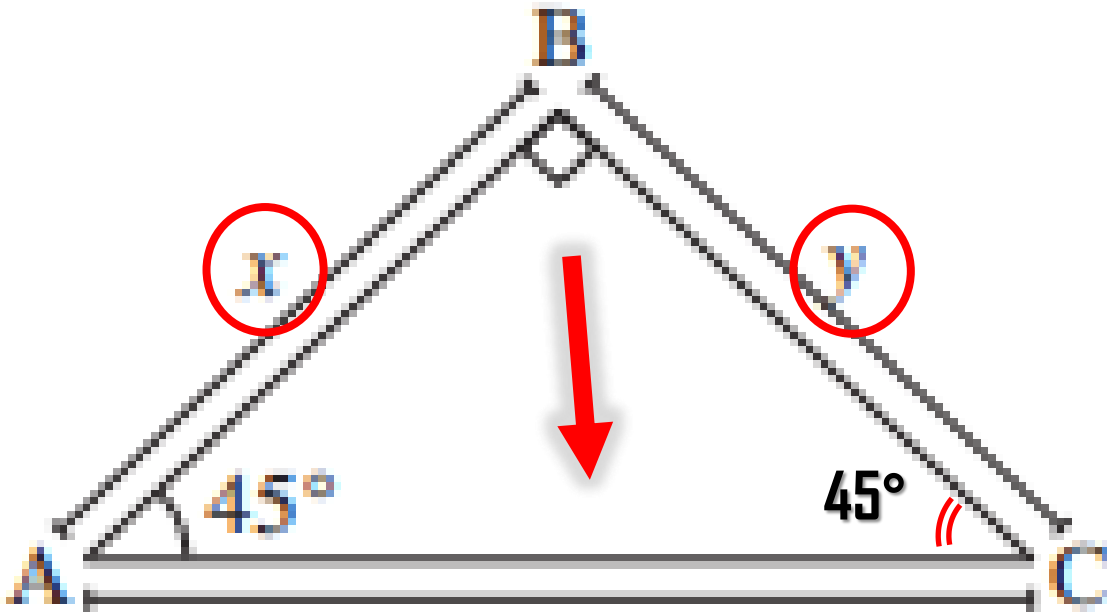


a - b
25 - 20

a - b = 5



5. En el gráfico, halle el valor de $(x + y)$.



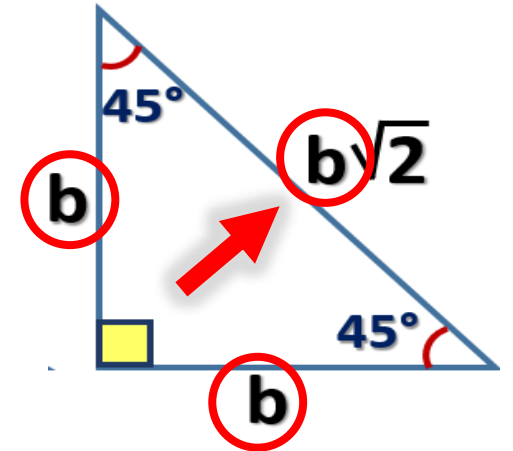
$$25\sqrt{2}$$

Resolución

Se pide: $x + y$

En el $\triangle ACB(45^\circ \text{ y } 45^\circ)$

$$x = y$$



$$AC = 25\sqrt{2} = x\sqrt{2}$$

$$x = 25$$

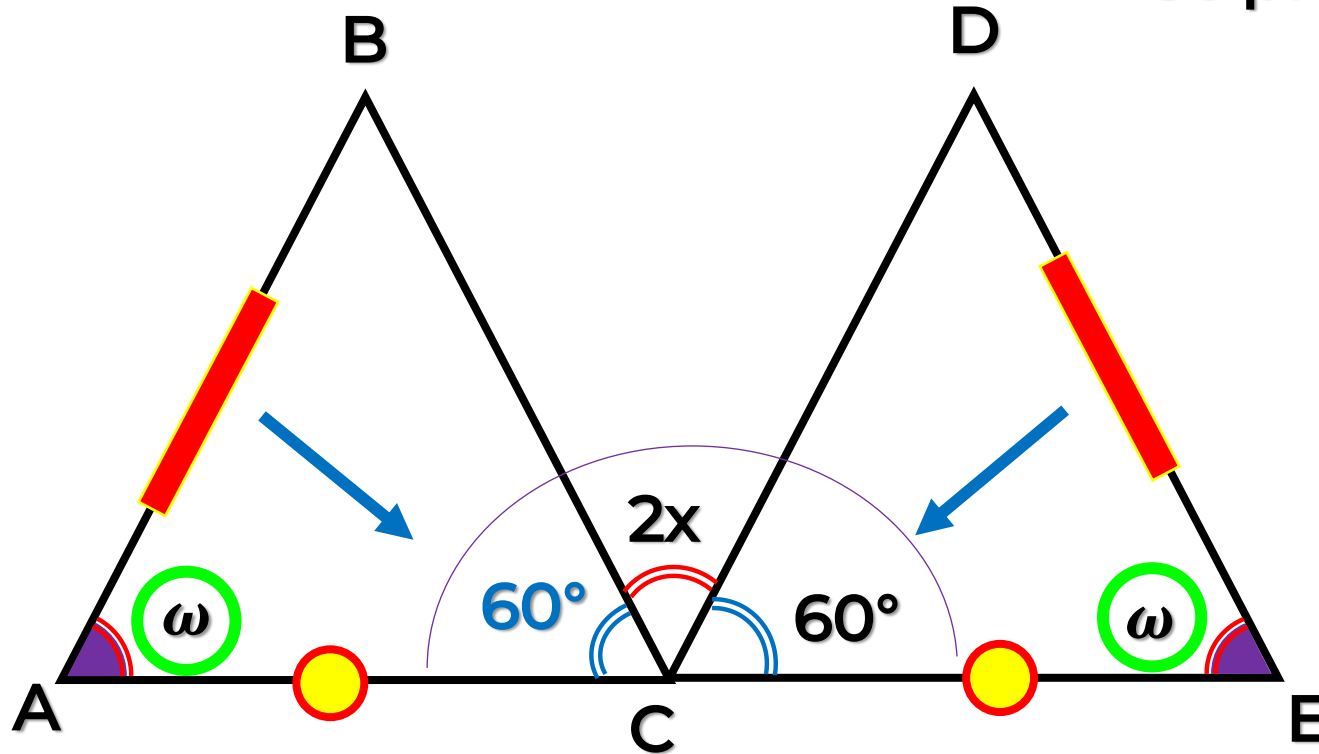
$$y = 25$$

$$x + y = 50$$



6. Del gráfico, halle el valor de x . Si $AB = DE$ y $AC = CE$.

Se pide: x



$$\triangle ABC \cong \triangle EDC$$

(L-A-L)

En el vértice C

$$60^\circ + 60^\circ + 2x = 180^\circ$$

$$120^\circ + 2x = 180^\circ$$

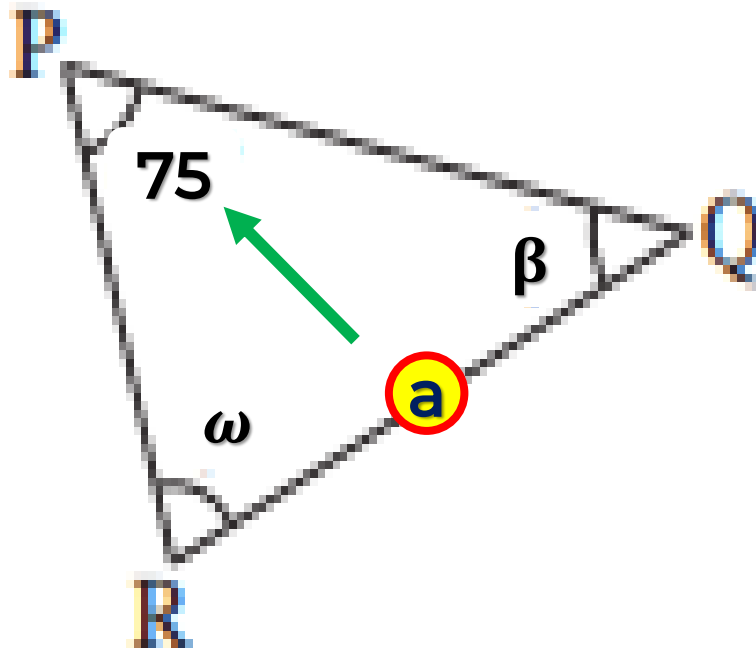
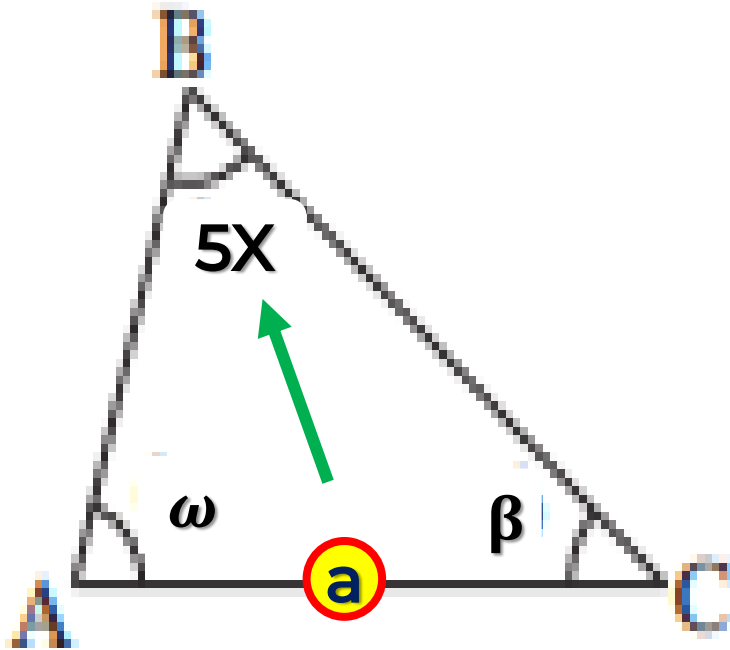
$$2x = 60^\circ$$

$$x = 30^\circ$$

$$m\angle DCE = m\angle BCA = 60^\circ$$



7. Del gráfico, si $AC \cong RQ$, halle el valor de x .



Se pide: x

$$\triangle ACB \cong \triangle RQP$$

(A-L-A)

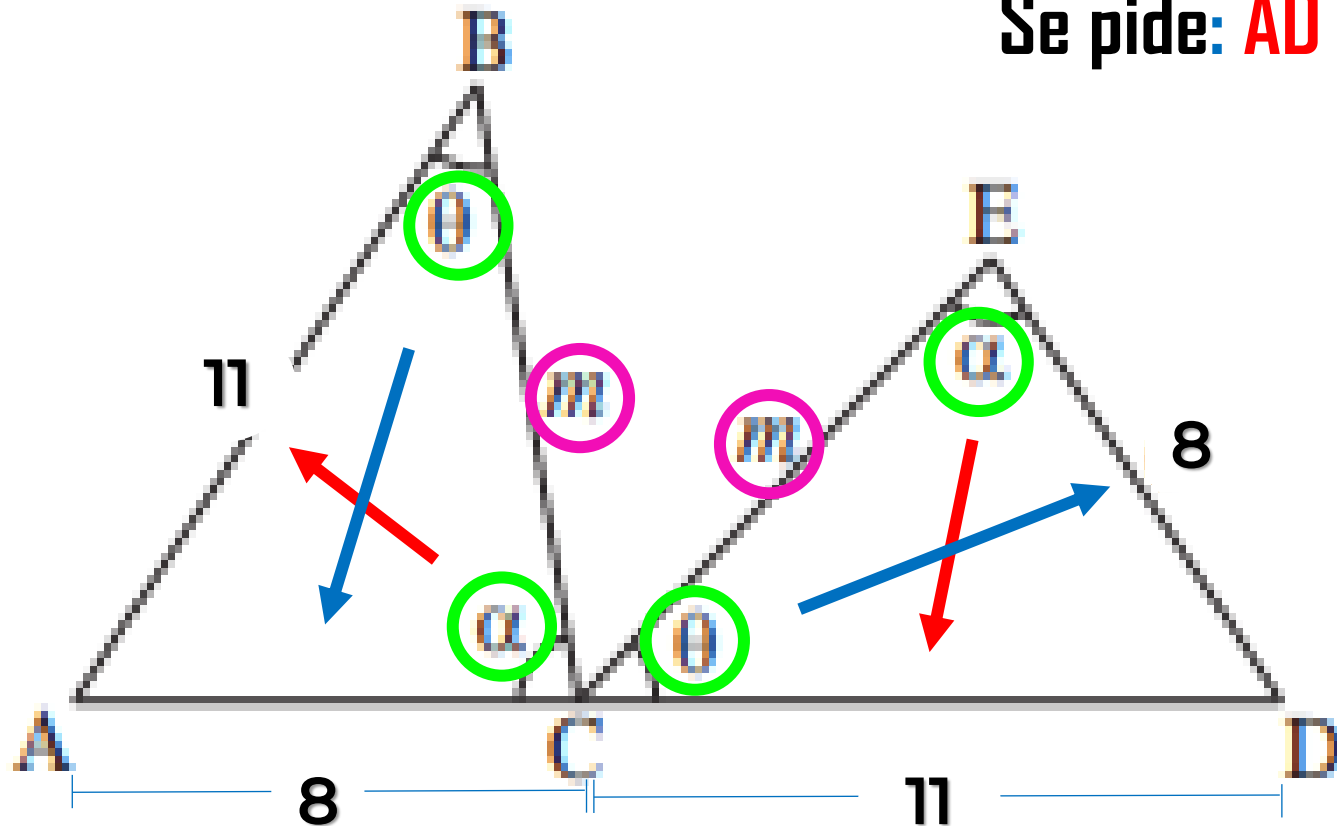
$$m\angle ABC = m\angle RPQ$$

$$5x = 75^\circ$$

$$x = 15^\circ$$



8. En el gráfico, halle AD.



Se pide: **AD**

$$\triangle BCA \cong \triangle CED$$

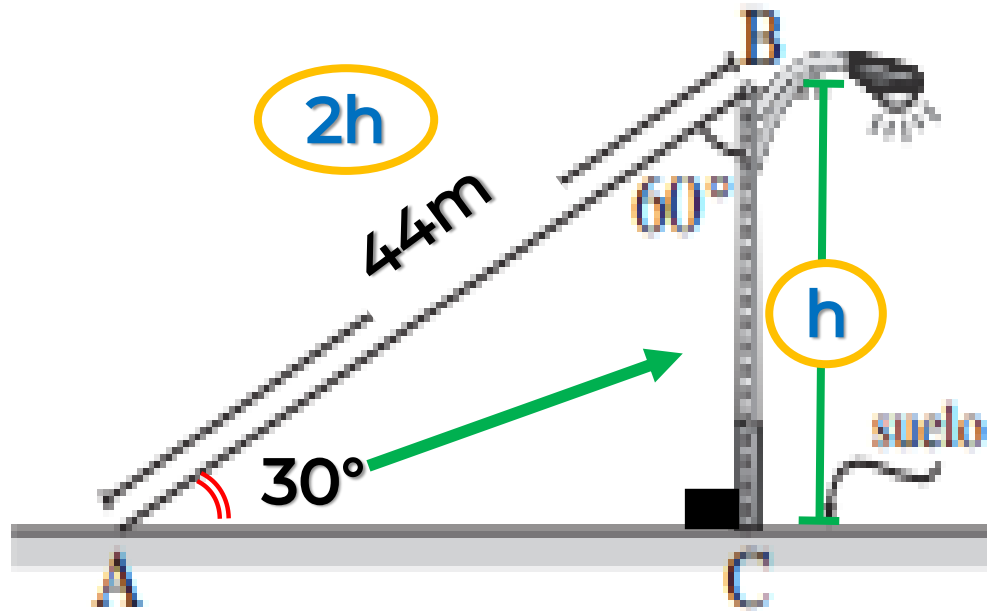
(A-L-A)



$$\left\{ \begin{array}{l} AC = ED = 8 \\ CD = AB = 11 \\ AD = AC + CD \\ \quad 8 + 11 \end{array} \right.$$

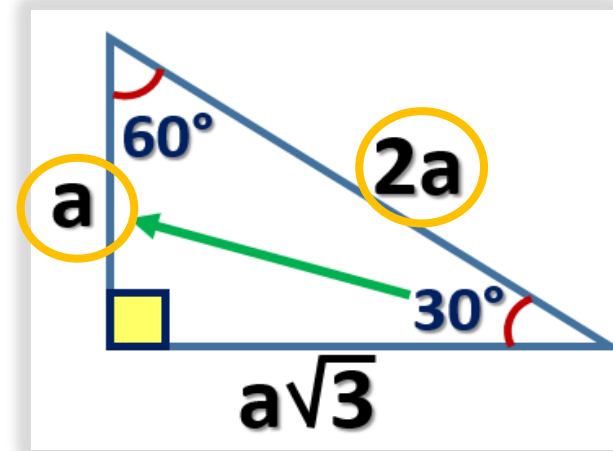
$$AD = 19$$

9. En la figura En la figura, se muestra un poste de alumbrado público, calcule la altura de dicho poste.



Se pide: h

En el $\triangle ACB$ (30° y 60°)



$$AB = 2h$$

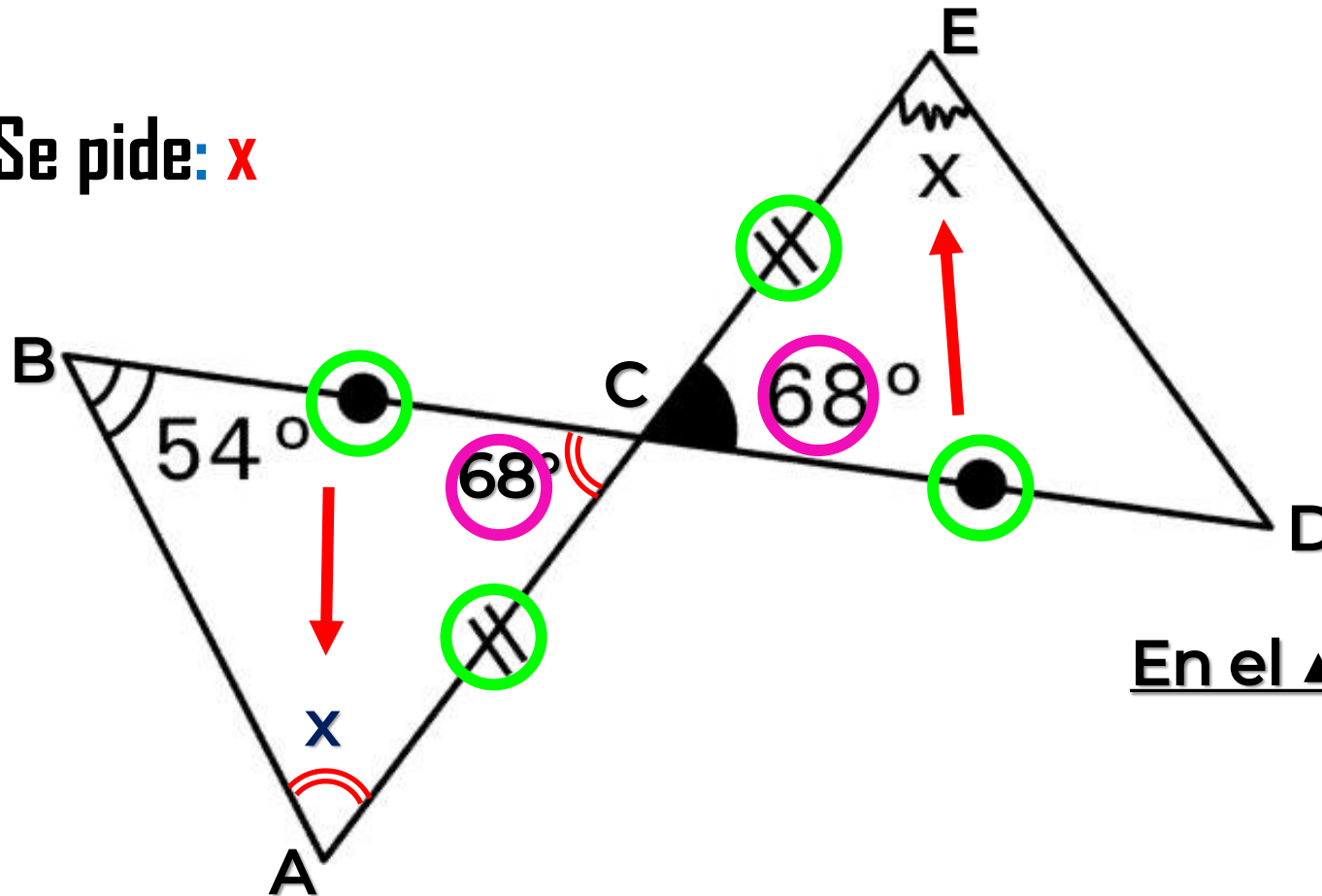
$$44 = 2h$$

$$h = 22 \text{ m}$$



10. En el gráfico, halle el valor de x .

Se pide: x



$$\triangle ABC \cong \triangle ECD$$

(L-A-L)

$$m\angle CED = m\angle BAC = x$$

En el $\triangle ABC$

$$54^\circ + 68^\circ + x = 180^\circ$$

$$122^\circ + x = 180^\circ$$

$$x = 58^\circ$$