

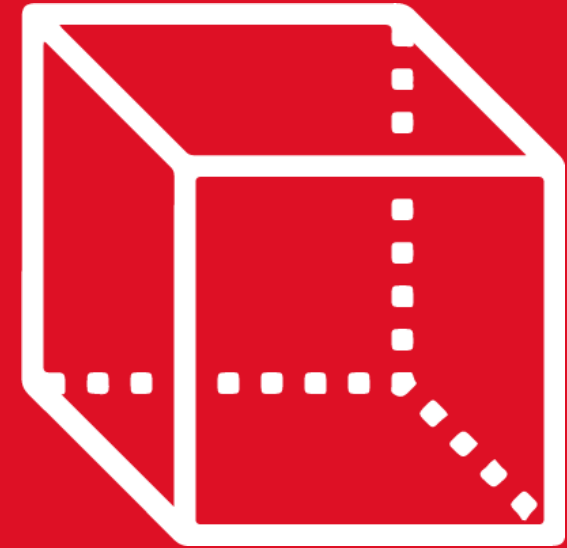


GEOMETRÍA

RETROALIMENTACIÓN

2nd
SECONDARY

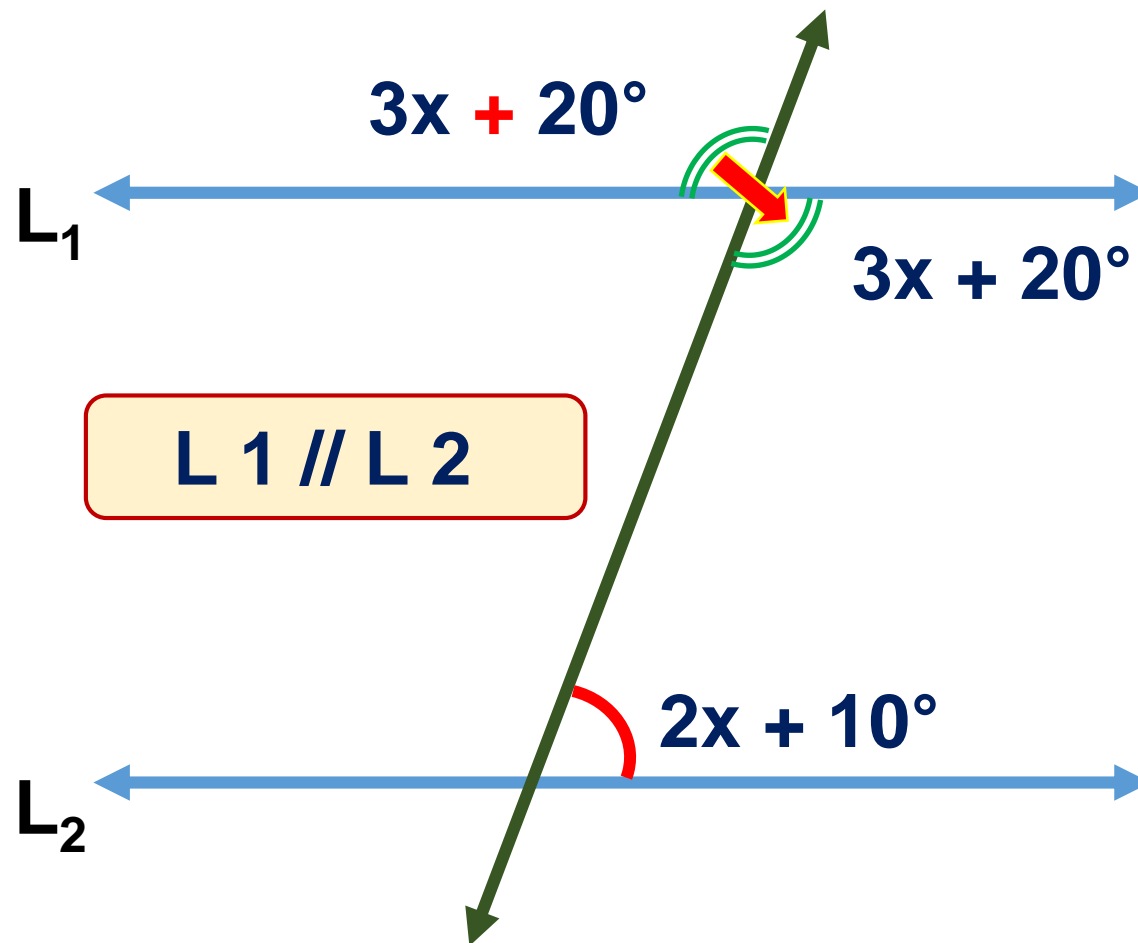
TOMO 2



 **SACO OLIVEROS**

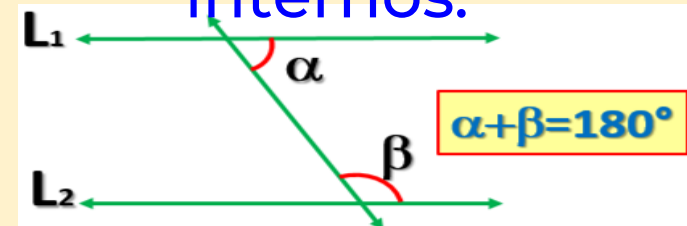


1. Si $\vec{L_1} \parallel \vec{L_2}$, halla el valor de x .



RECORDEMOS

Ángulos conjugados
internos:



$$x + 20^\circ + 2x + 10^\circ = 180^\circ$$

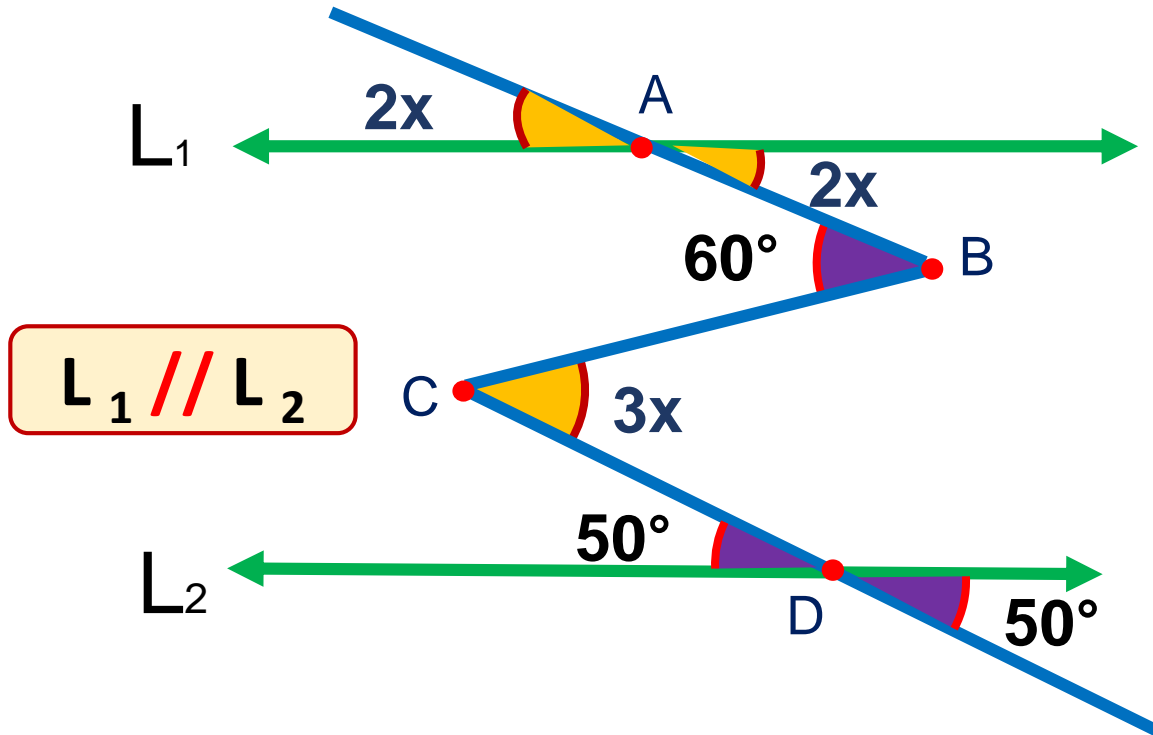
$$5x + 30^\circ = 180^\circ$$

$$5x = 150^\circ$$

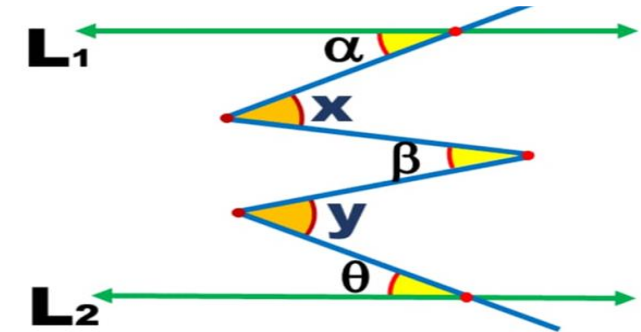
$$x = 30^\circ$$



2. Si $\vec{L_1} \parallel \vec{L_2}$, halle x .



RECORDEMOS



$$x + y = \alpha + \beta + \theta$$

$$3x + 2x = 60^\circ + 50^\circ$$

$$5x = 110^\circ$$

$$x = 22^\circ$$



3. Si $\vec{L}_1 \parallel \vec{L}_2$, halla el valor de x .

Ángulos conjugados

L_1 α β $\alpha + \beta = 180^\circ$

L_1 2β 120° L_2 $2x$ 3β $3x$ $L_1 \parallel L_2$

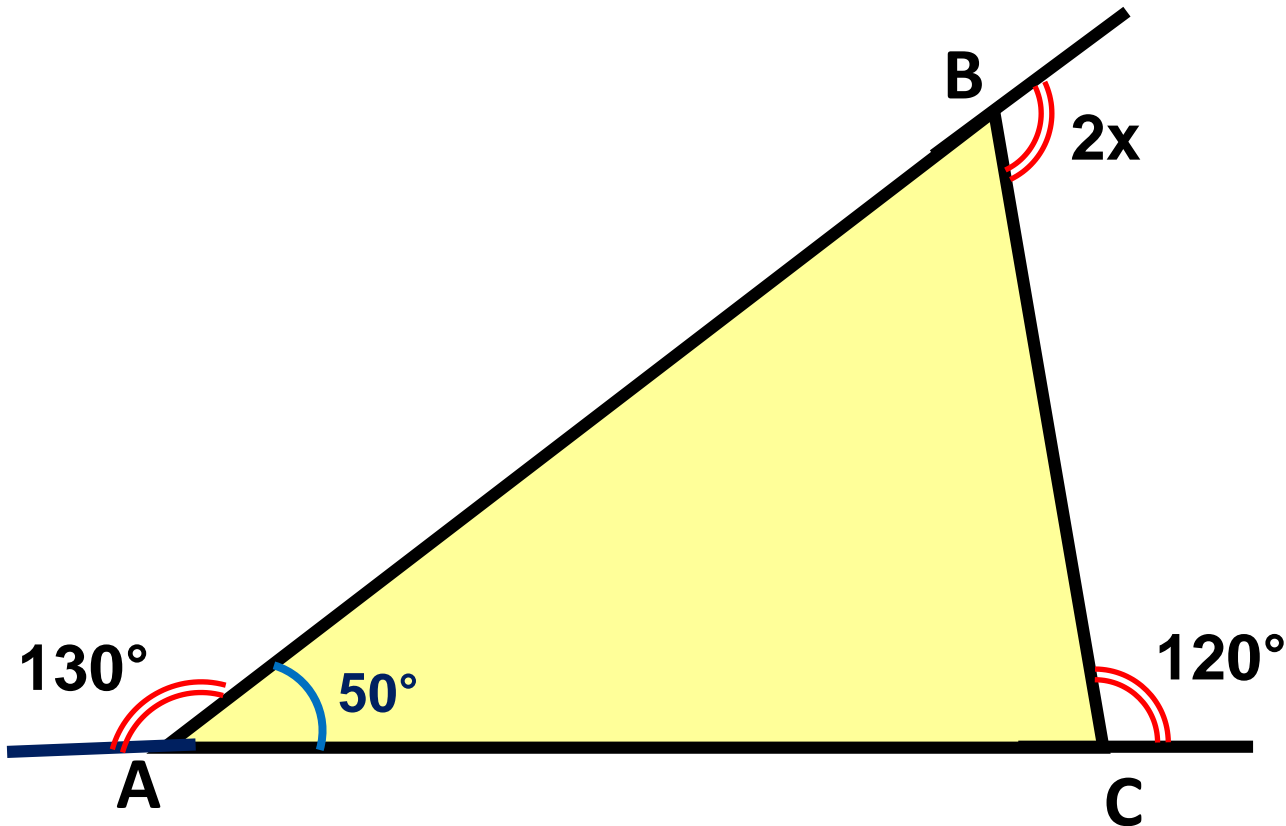
$2\beta + 120^\circ = 180^\circ$
 $2\beta = 60^\circ$
 $\beta = 30^\circ$

$2x$ 3β $3x$ $3\beta = 2x + 3x$
 $3(30^\circ) = 5x$
 $x = 18^\circ$

$x = \alpha + \beta$

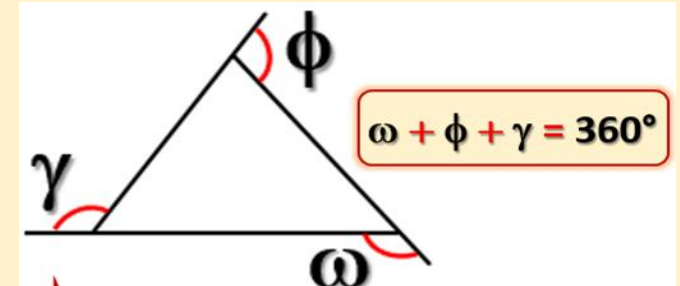


4. En el gráfico, halla el valor de x .



RECORDEMOS

Suma de ángulos



$$2x + 130^\circ + 120^\circ = 360^\circ$$

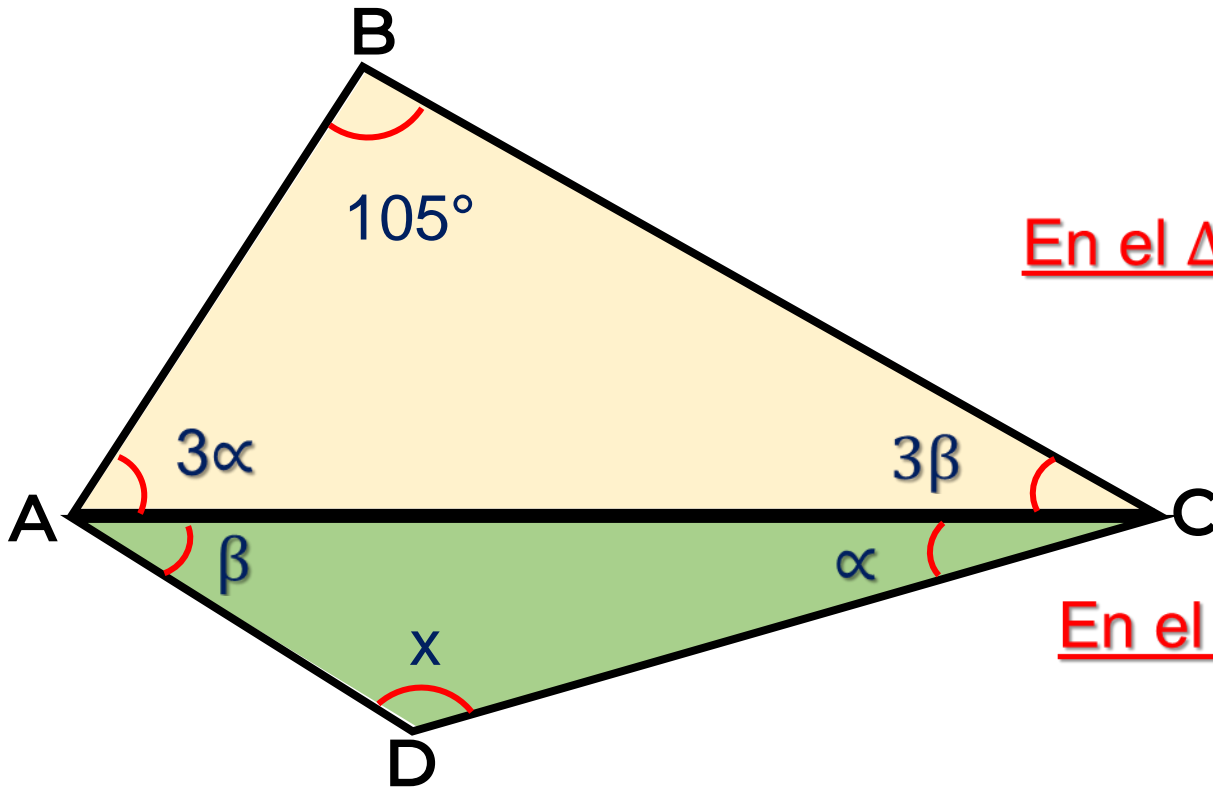
$$2x + 250^\circ = 360^\circ$$

$$2x = 110^\circ$$

$$x = 55^\circ$$

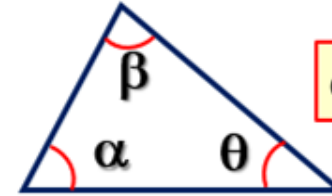


5. En el gráfico, halla el valor de x .



RECORDEMOS

Suma de ángulos internos:



$$\alpha + \beta + \theta = 180^\circ$$

En el ΔABC :

$$3\alpha + 3\beta + 105^\circ = 180^\circ$$

$$3\alpha + 3\beta = 75^\circ$$

$$\alpha + \beta = 25^\circ$$

En el ΔADC :

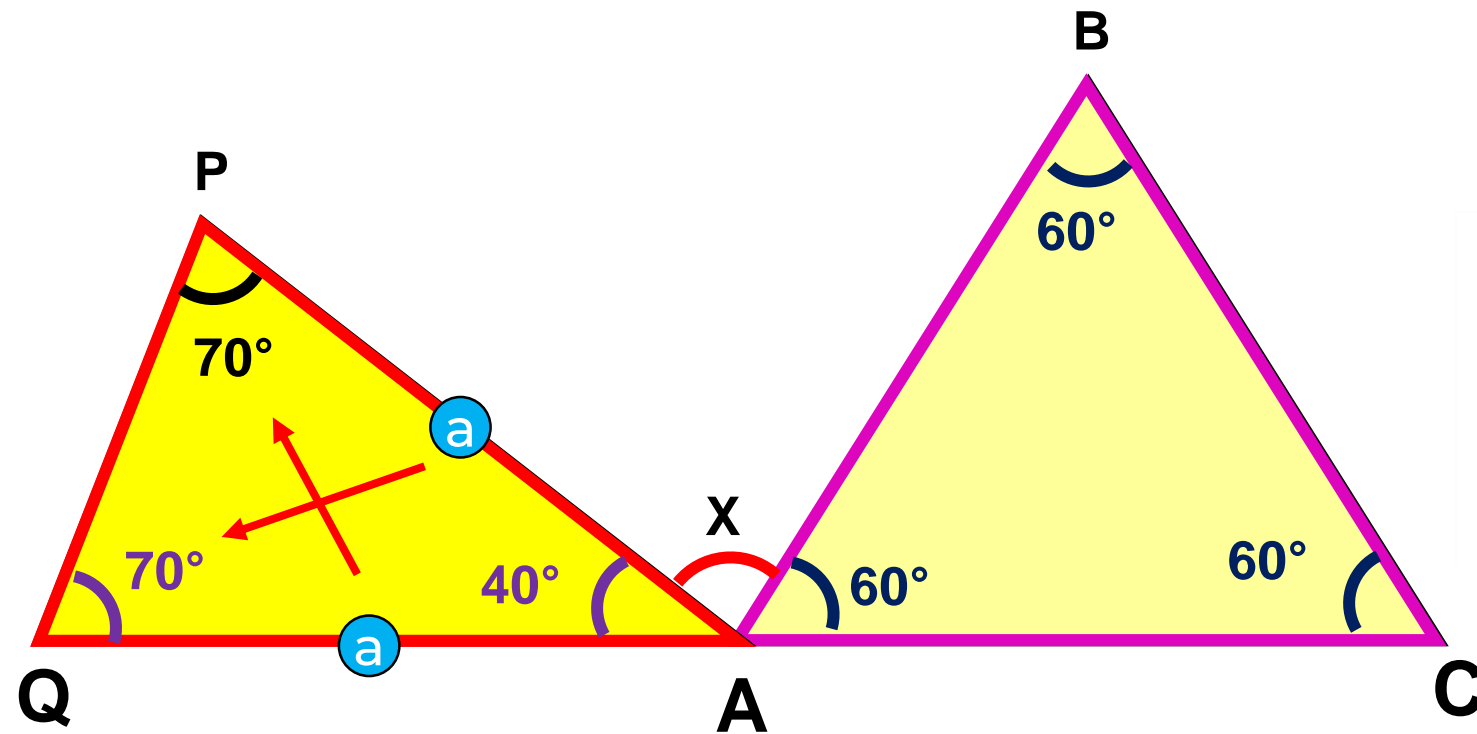
$$\alpha + \beta + x = 180^\circ$$

$$25^\circ + x = 180^\circ$$

$$x = 155^\circ$$



6. Si el triángulo ABC es equilátero y $AP = AQ$. Halle x

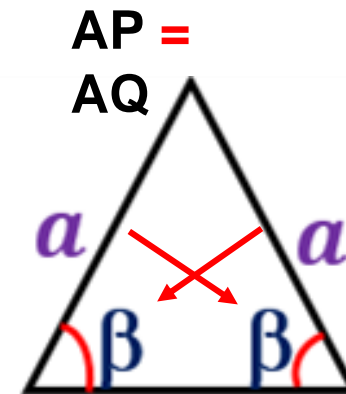


En el vértice A

$$40^\circ + x + 60^\circ = 180^\circ$$

$$x + 100^\circ = 180^\circ$$

△ Isósceles



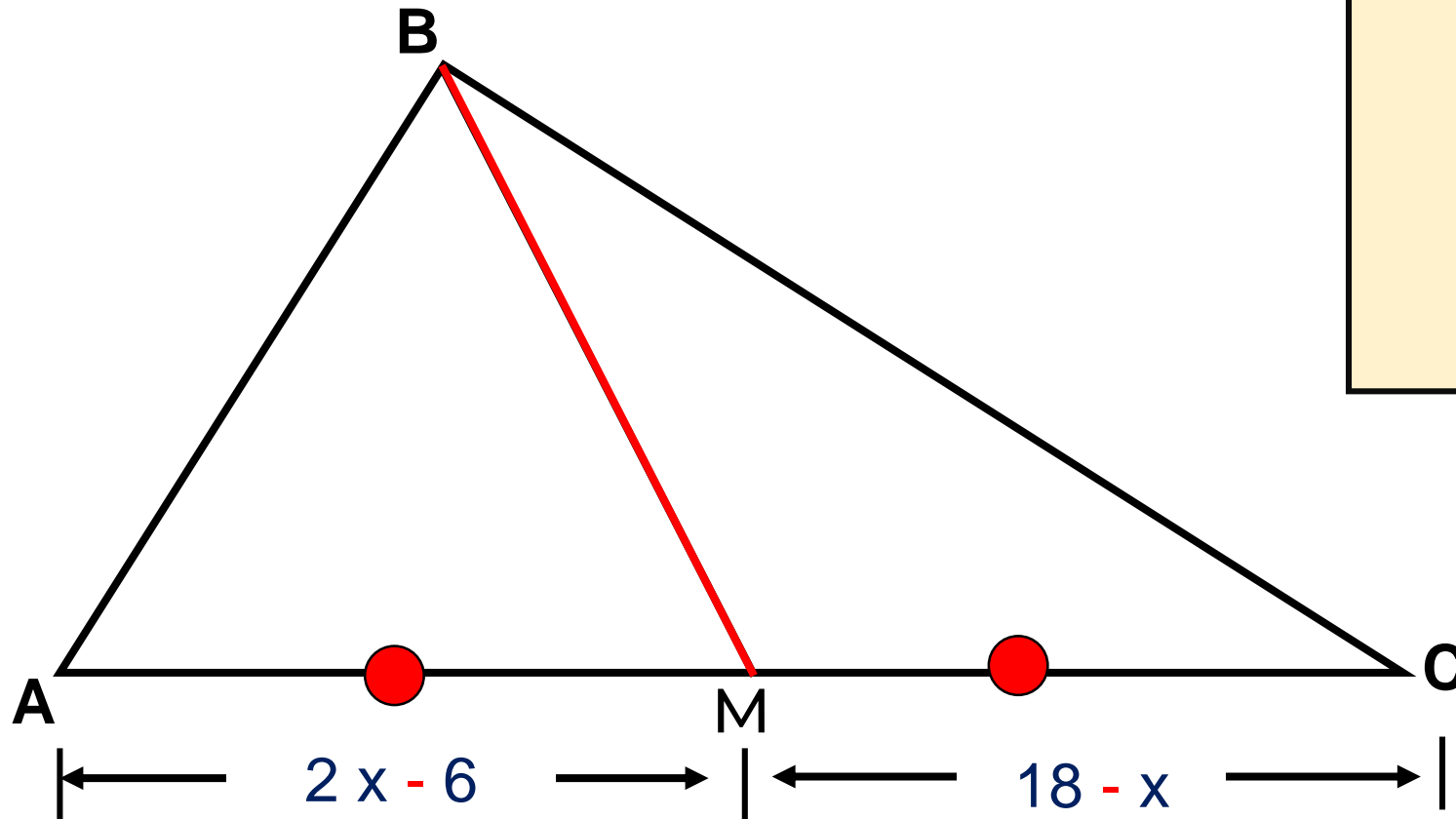
△ Equilátero



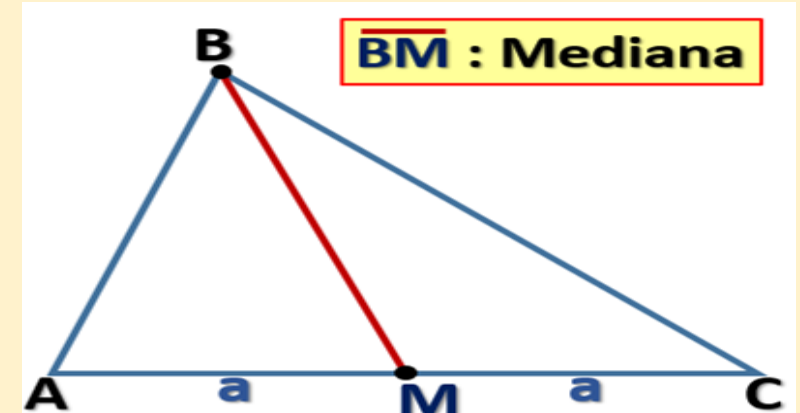
$x = 80^\circ$



7. Si \overline{BM} es la mediana relativa \overline{AC} .
Hallar el valor de x



RECORDEMOS



$$AM = MC$$

$$2x - 6 = 18 - x$$

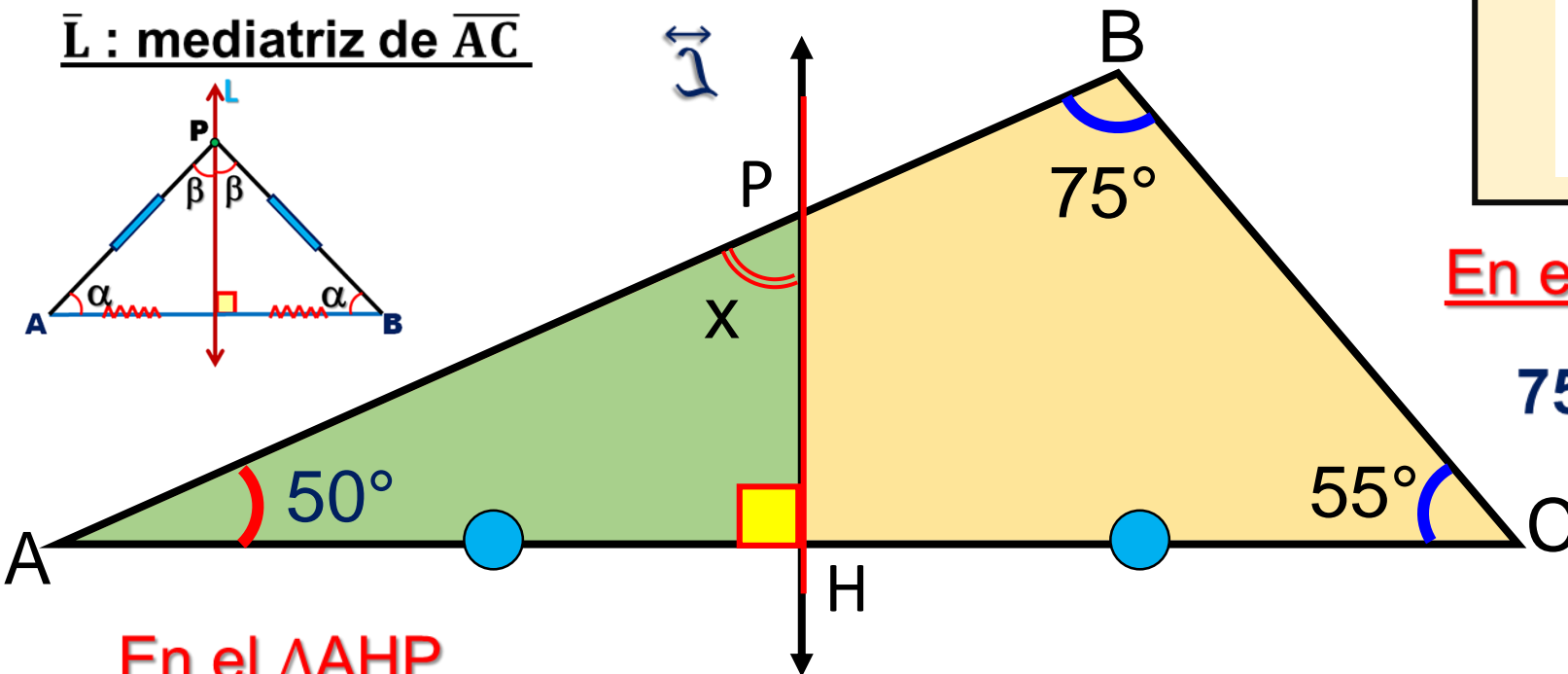
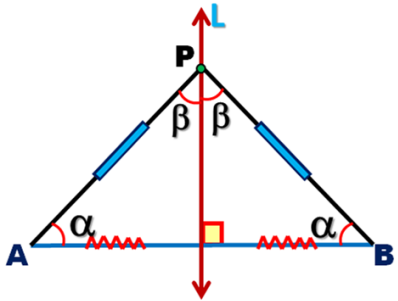
$$3x = 24$$

$$x = 8$$

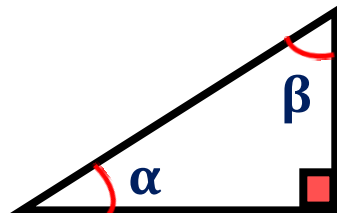


8. Si \bar{L} es la mediatriz relativa \overline{AC} . Hallar el valor de x

\bar{L} : mediatriz de \overline{AC}



En el $\triangle AHP$

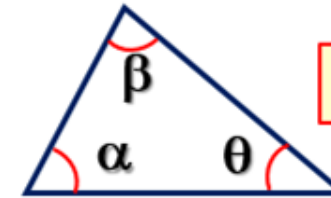


$$a + b = 90^\circ$$

$$50^\circ + x = 90^\circ$$

RECORDEMOS

Suma de ángulos internos:



$$\alpha + \beta + \theta = 180^\circ$$

En el $\triangle ABC$

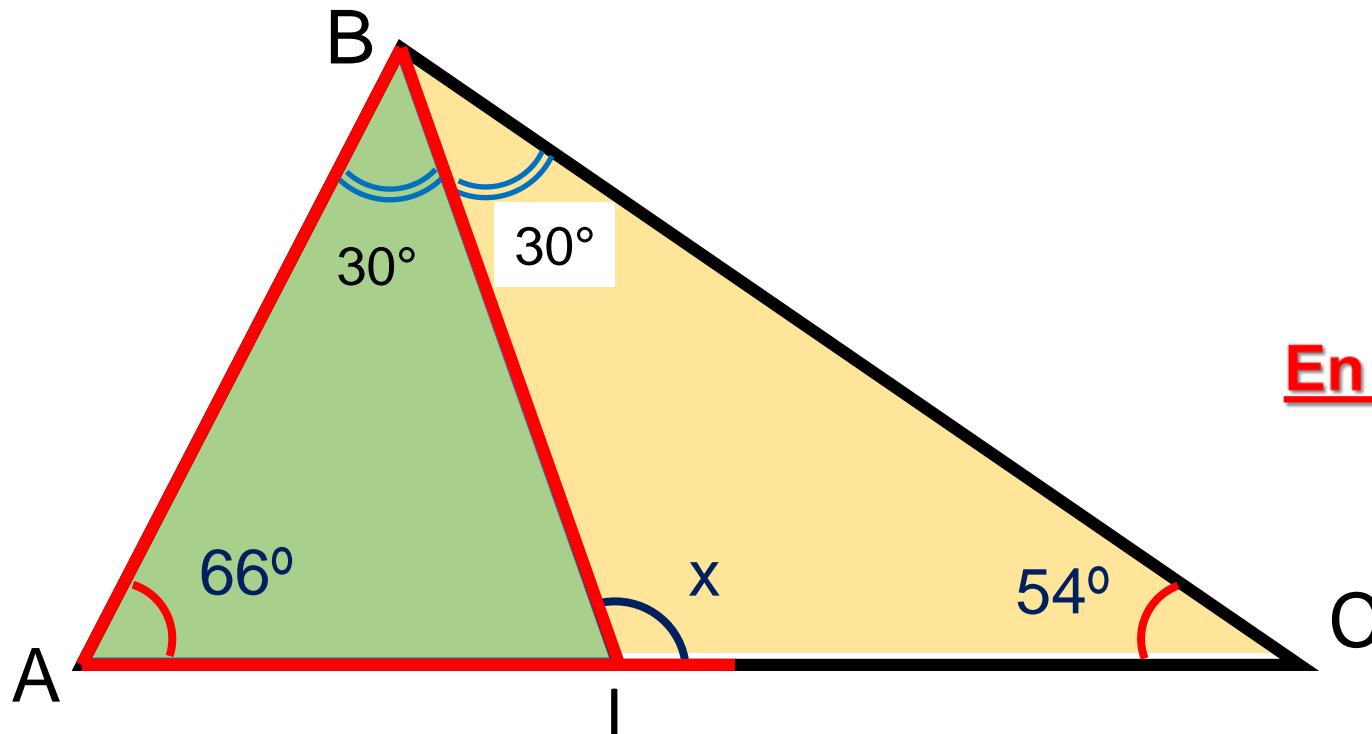
$$75^\circ + 55^\circ + m\angle A = 180^\circ$$

$$m\angle A = 50^\circ$$

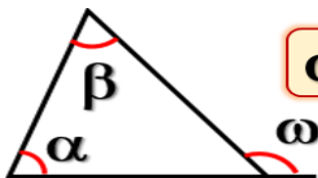
$$x = 40^\circ$$



9. Si \overline{BI} es bisectriz interior del triángulo ABC, halle el valor de x.



En el $\triangle ABI$



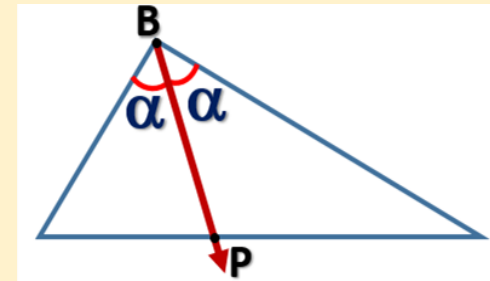
$$\omega = \alpha + \beta$$

$$66^\circ + \alpha = x$$

$$66^\circ + 30^\circ = x$$

RECORDEMO

\overrightarrow{BP} : Bisectriz Interior



En el $\triangle ABC$

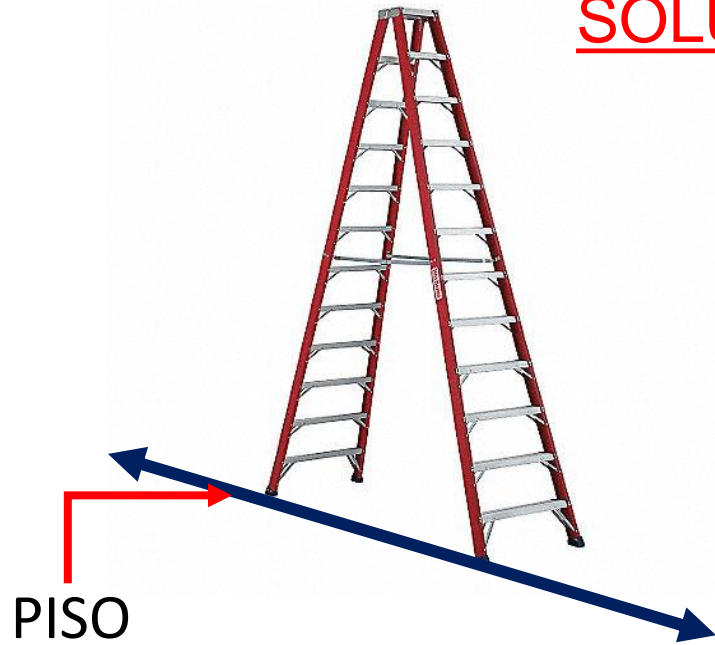
$$66^\circ + 2\alpha + 54^\circ = 180^\circ$$

$$\alpha = 30^\circ$$

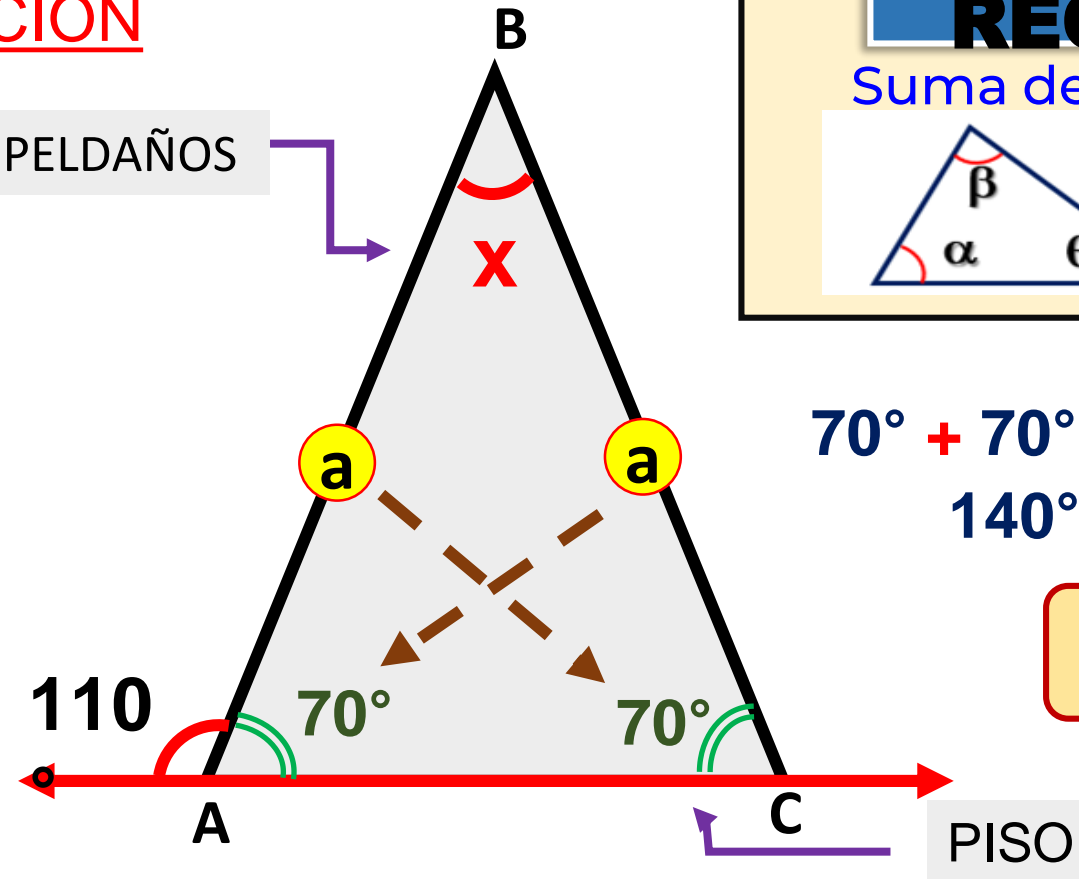
$$x = 96^\circ$$

10. En la figura se muestra una escalera doble pie, si el ángulo exterior de la base mide 110° , halle el ángulo que mide en la parte superior entre ambos peldaños.

SOLUCIÓN

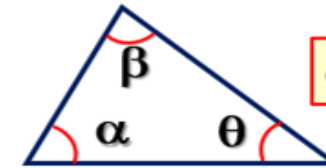


PELDAÑOS



RECORDEMOS

Suma de ángulos internos:



$$\alpha + \beta + \theta = 180^\circ$$

$$70^\circ + 70^\circ + x = 180^\circ$$

$$140^\circ + x = 180^\circ$$

$$x = 40^\circ$$