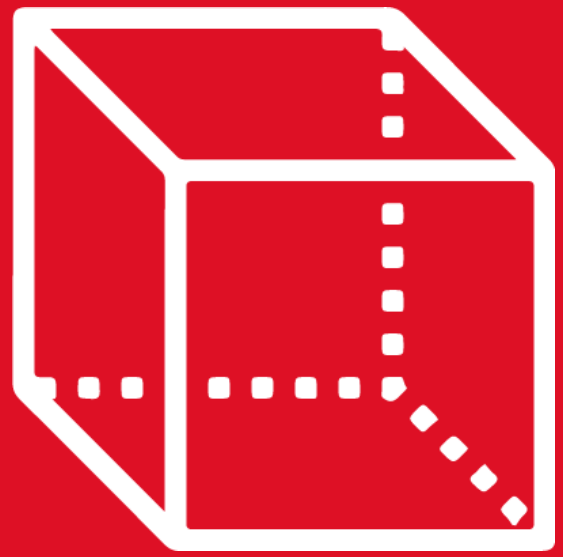
GEOMETRÍA

1st

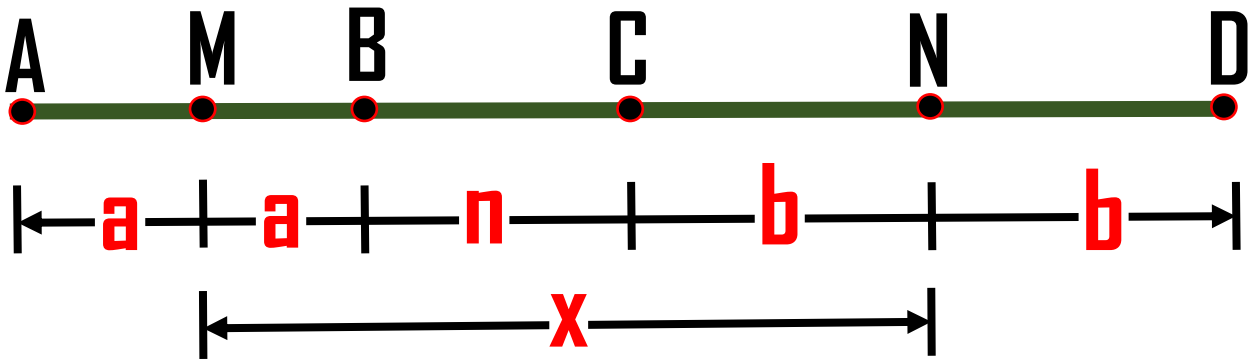
SECONDARY



Asesoría

SACO OLIVEROS

1.En el grafico mostrado, AC + BD = 24cm. Halle el valor de x.



Dato: $AC + BD = 24$

$$2a + n + 2b = 24$$

$$2a + 2n + 2b = 24$$

$$a + n + b = 12$$

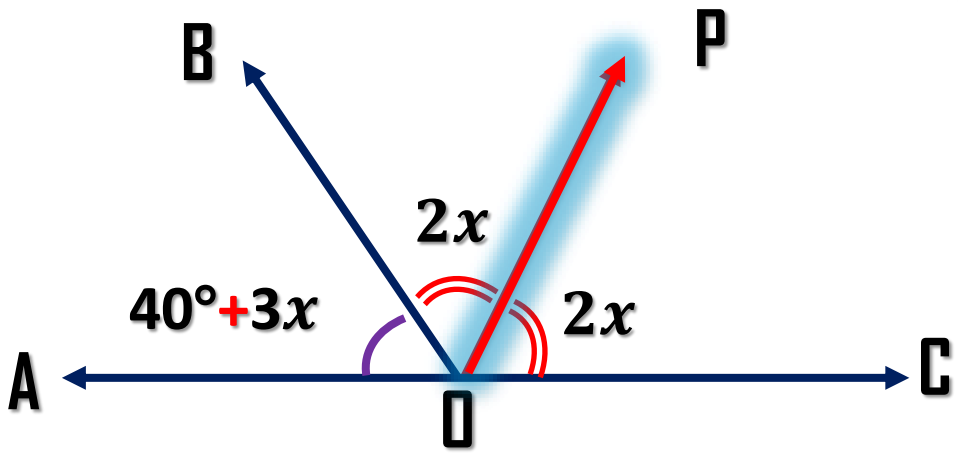
Nos piden : X

$$x = a + n + b$$

$$x = 12$$

$$X = 12$$

2.En la figura halle el valor de X, si OP es bisectriz del <BOC



$\overrightarrow{OP}$ es bisectriz del ∡BOC.

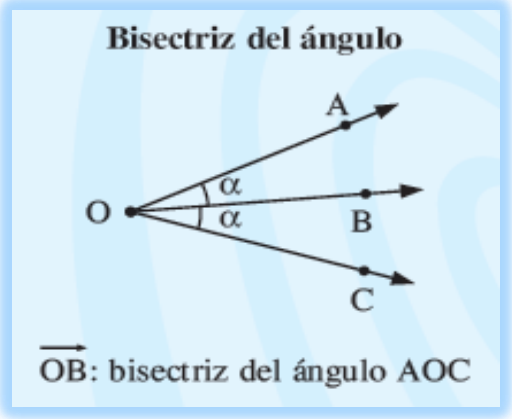
$$\text{m} \measuredangle \text{COP} = \text{m} \measuredangle \text{BOP} = 2x$$

En la $\overleftrightarrow{AC}$.

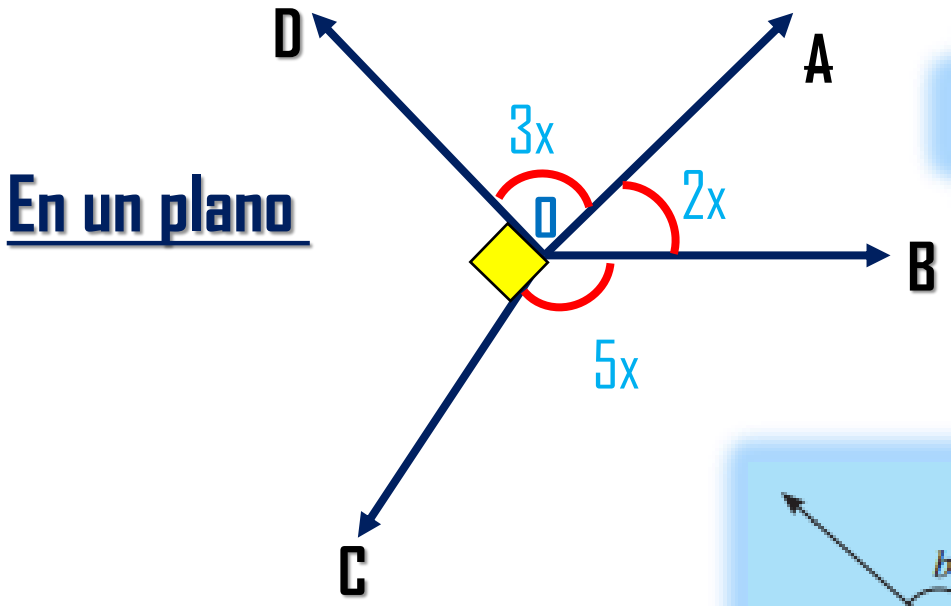
$$40° + 3x + 2x + 2x = 180°$$

$$7x = 140°$$

$$x = 20°$$



3.En un plano se trazan los rayos $\overrightarrow{OA}$,$\overrightarrow{OB}$,$\overrightarrow{OC}$ y $\overrightarrow{OD}$, tal que m<AOB=2x,m<BOC=5x, m<COD=90° y m<DOA = 3x. Halle el valor de x



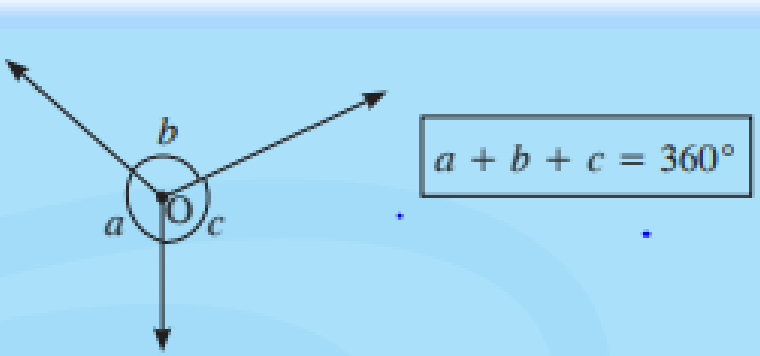
En un plano

$$3x + 2x + 5x + 90° = 360°$$

$$3x + 2x + 5x = 360° - 90°$$

$$10x = 270°$$

X = 27°



4.Si el suplemento de 2x es igual al cuádruple del complemento de 3x. Halle el valor de x

$$S_{2x} = 4 \cdot C_{3x}$$

$$180° - 2x = 4 \cdot (90 - 3x)$$

$$180° - 2x = 360 - 12x$$

$$12x - 2x = 360 - 180°$$

$$10x = 180°$$

$$\boxed{x = 18°}$$

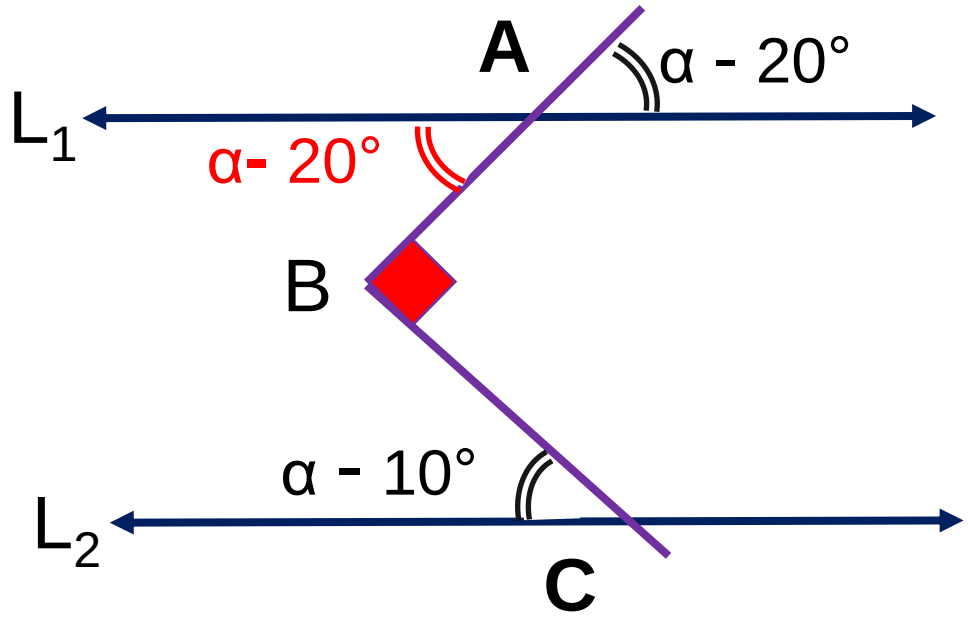
Suplemento (S)

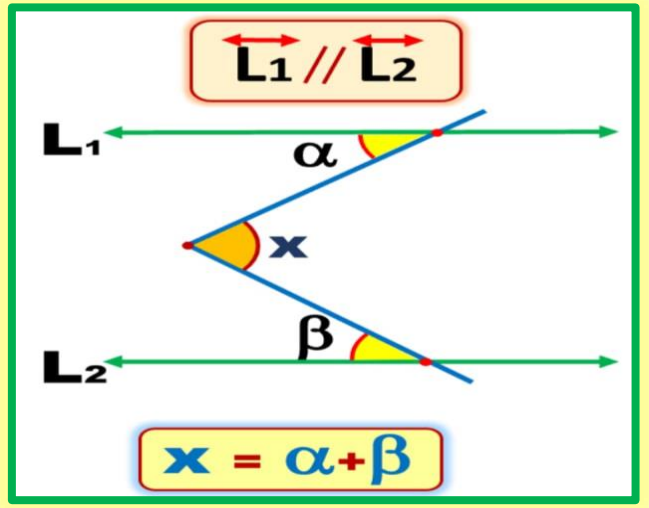
$$S_\alpha = 180° - \alpha$$

Complemento (C)

$$C_\alpha = 90° - \alpha$$

5.En el gráfico $\overleftrightarrow{L_1} // \overleftrightarrow{L_2}$, halle el valor de α, si m<B = 90°.





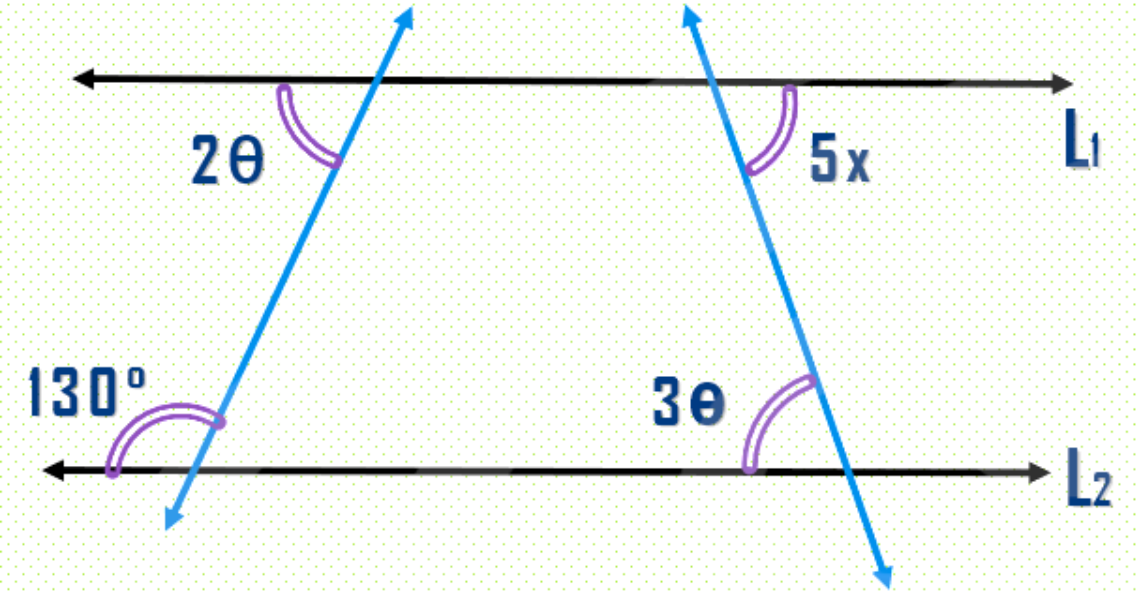
$\alpha - 20° + \alpha - 10° = 90°$

$2\alpha - 30° = 90°$

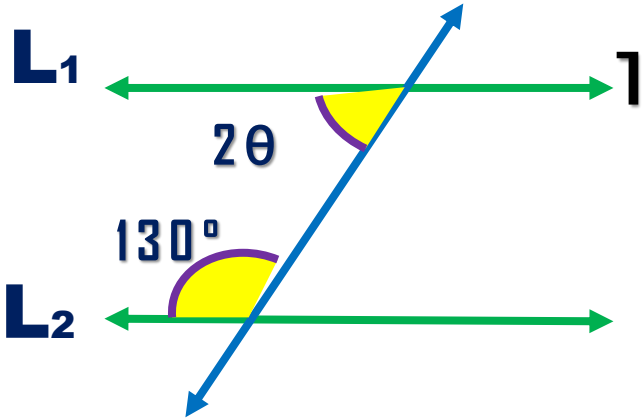
$2\alpha = 120°$

$\alpha = 60°$

6.Si $\overleftrightarrow{L_1} // \overleftrightarrow{L_2}$, halle el valor de x.



Áng. conjugados

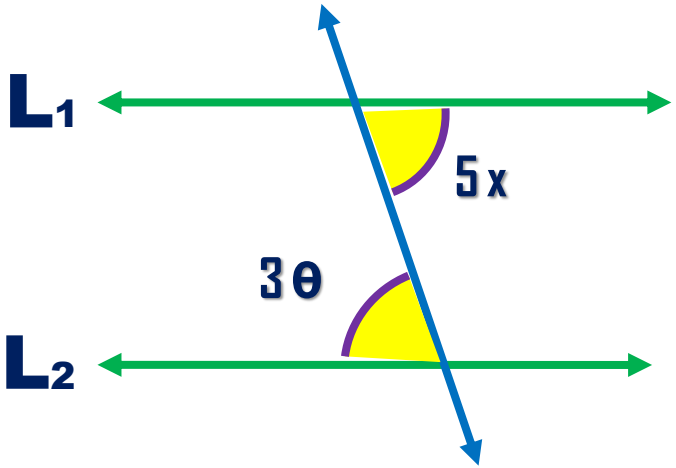


$130° + 2\theta = 180°$

$2\theta = 50°$

$\theta = 25°$

Áng. Alternos internos



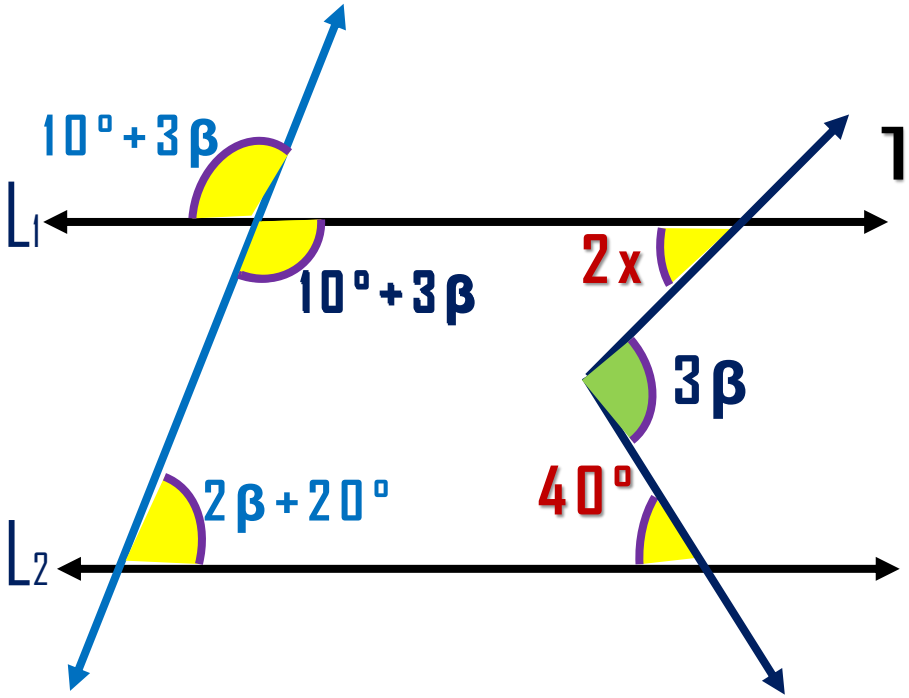
$3\theta = 5x$

$3.(25°) = 5x$

$75° = 5x$

$15° = x$

7. Si $\overleftrightarrow{L_1} \parallel \overleftrightarrow{L_2}$, halle el valor de x.



$10° + 3\beta + 2\beta + 20° = 180°$

$5\beta + 30° = 180°$

$5\beta = 150°$

$\beta = 30°$

$3\beta = 2x + 40°$

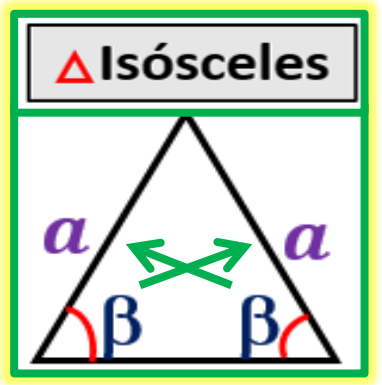
$3(30°) = 2x + 40°$

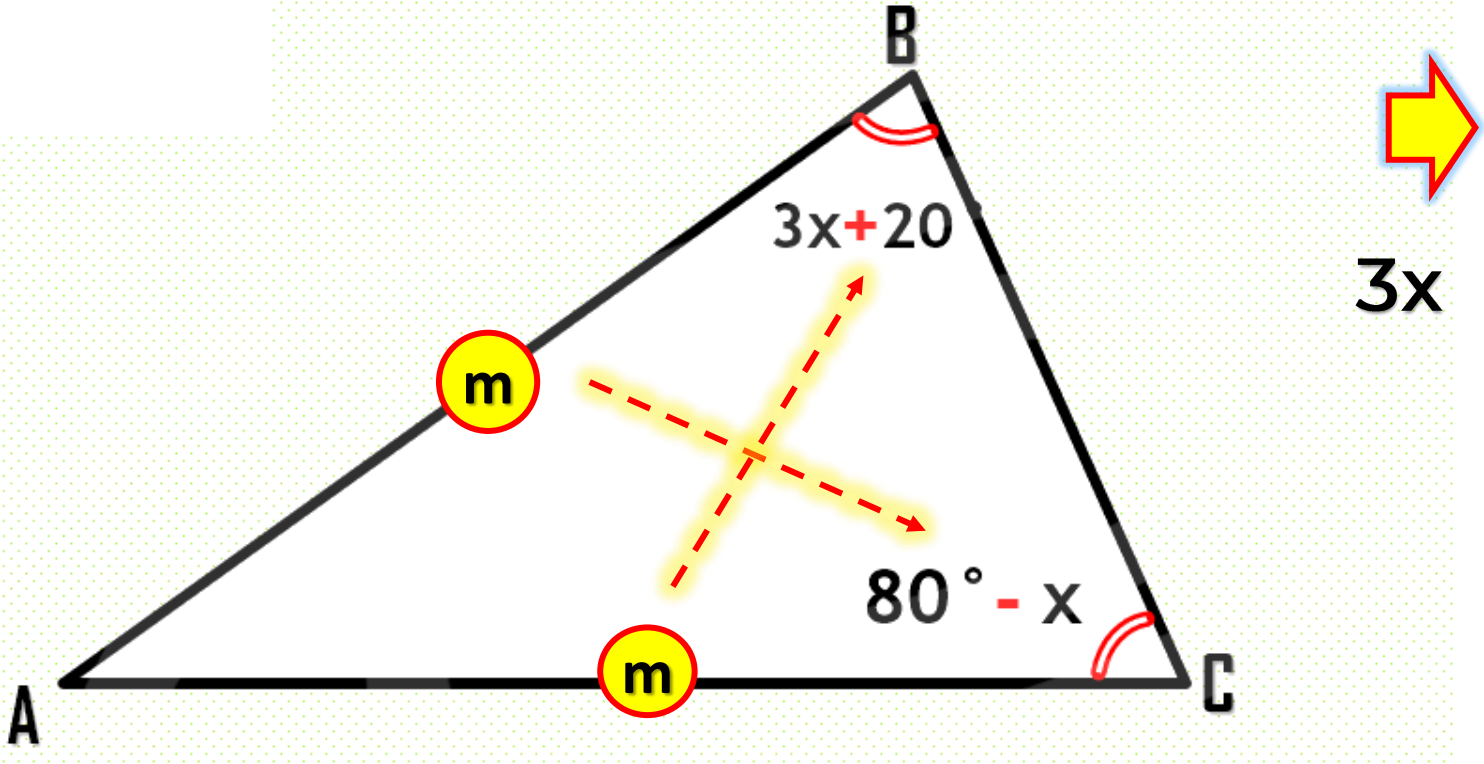
$90° = 2x + 40°$

$50° = 2x$

$25° = X$

8. En el gráfico AB=AC , halle el valor de x.





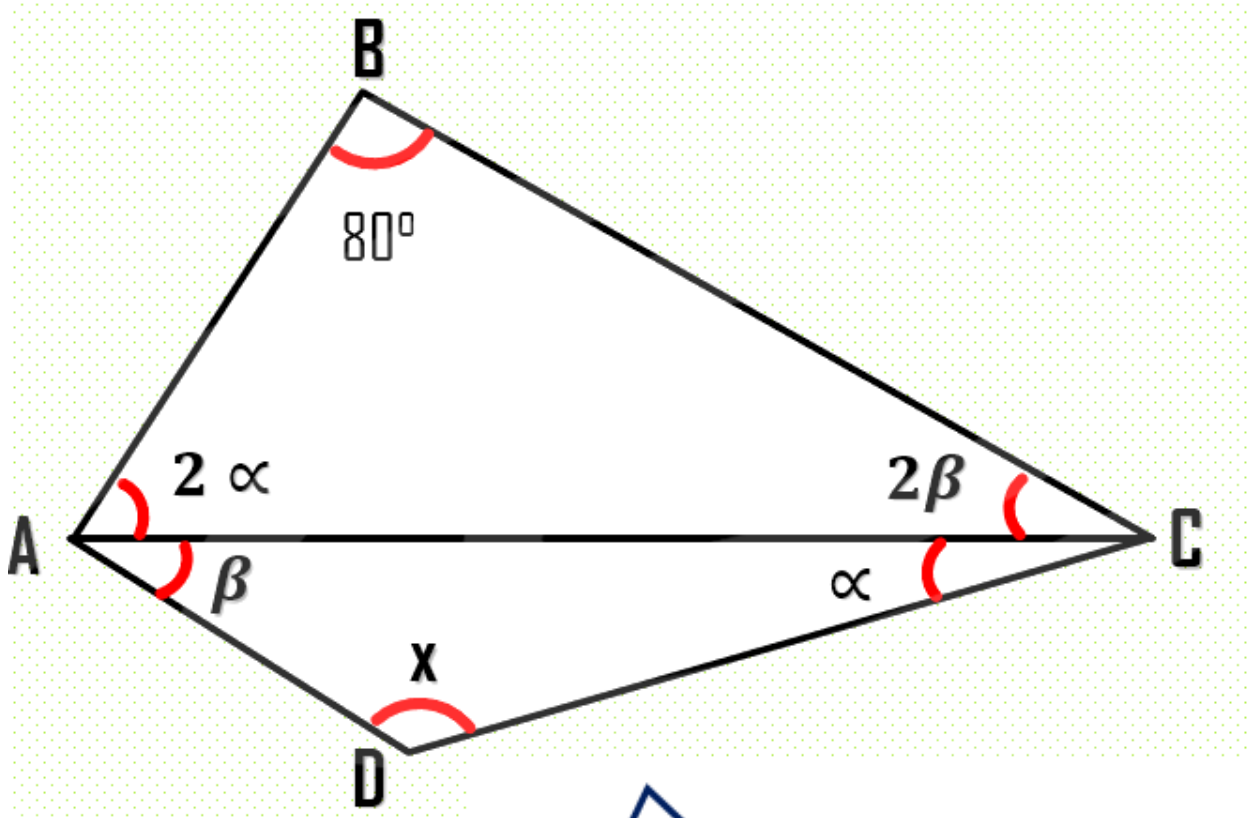
$m \measuredangle ABC = m \measuredangle ACB$

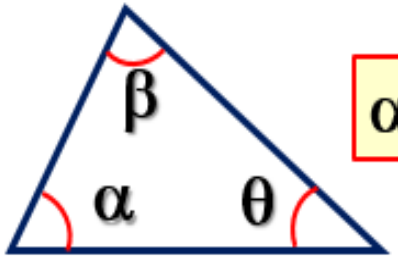
$3x + 20° = 80° - x$

$4x = 60°$

$x = 15°$

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





$\alpha + \beta + \theta = 180°$

En el Δ ABC

$$2 \propto + 2\beta + 80° = 180°$$

$$2 \propto + 2\beta = 100°$$

$$\propto + \beta = 50°$$

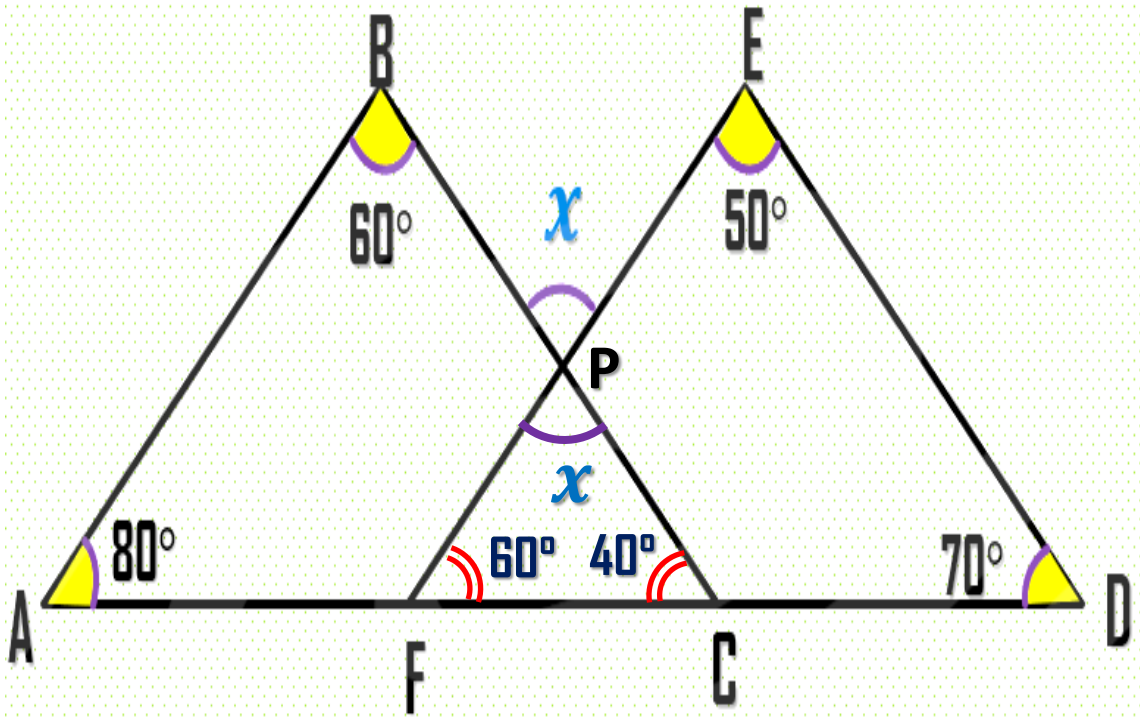
En el Δ ADC

$$\propto + \beta + x = 180°$$

$$50° + x = 180°$$

X = 130°

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



En Δ ABC

$$80° + 60° + m\measuredangle C = 180°$$
$$140° + m\measuredangle C = 180°$$
$$m\measuredangle C = 40°$$

En Δ EFD

$$50° + 70° + m\measuredangle F = 180°$$
$$120° + m\measuredangle F = 180°$$
$$m\measuredangle F = 60°$$

En Δ FPC

$$60° + 40° + x = 180°$$
$$100° + x = 180°$$
$$x = 80°$$