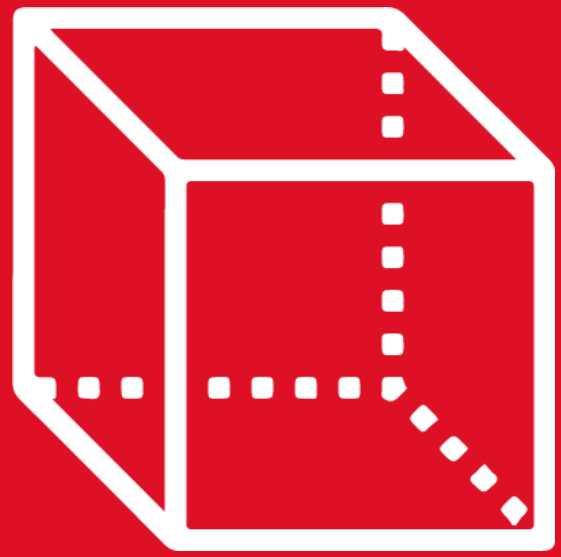
GEOMETRÍA



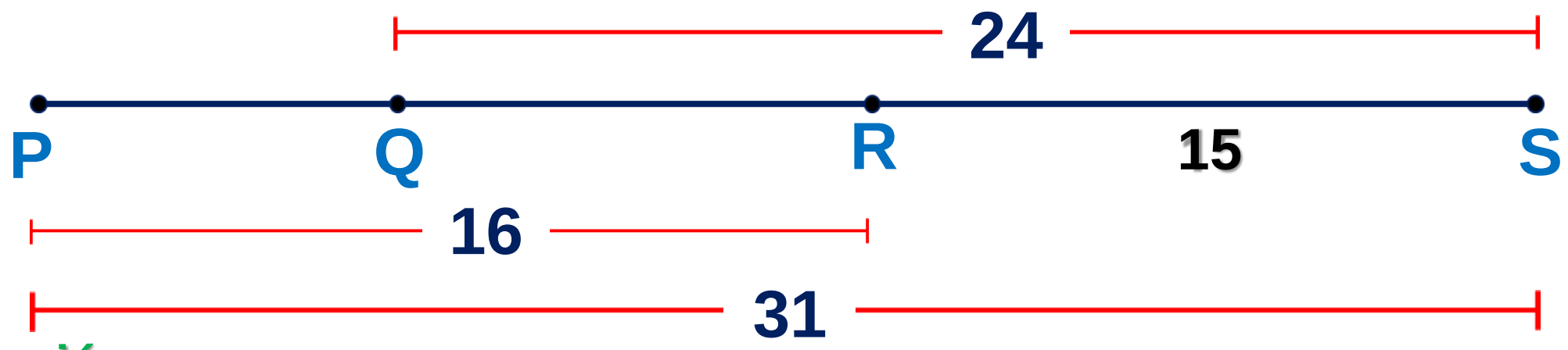
1st

SECONDARY

RETROALIMENTACIÓN

SACO OLIVEROS

1. Considerando los datos de la figura mostrada, calcule QR.



Resolución

- Piden: QR
- Aplicando la adición de segmentos:

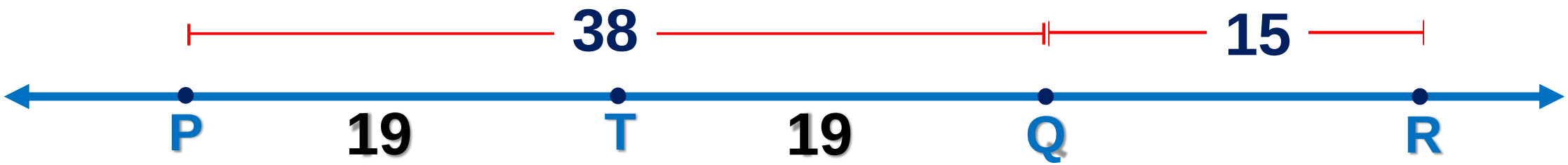
$$PS = PR + RS$$
$$31 = 16 + RS$$
$$RS = 15$$

- Del gráfico tenemos:

$$QS = QR + RS$$
$$24 = QR + 15$$

$$\boxed{BC = 9\ u}$$

2. En la figura, T es punto medio de $\overline{PQ}$, halle TR.



Resolución

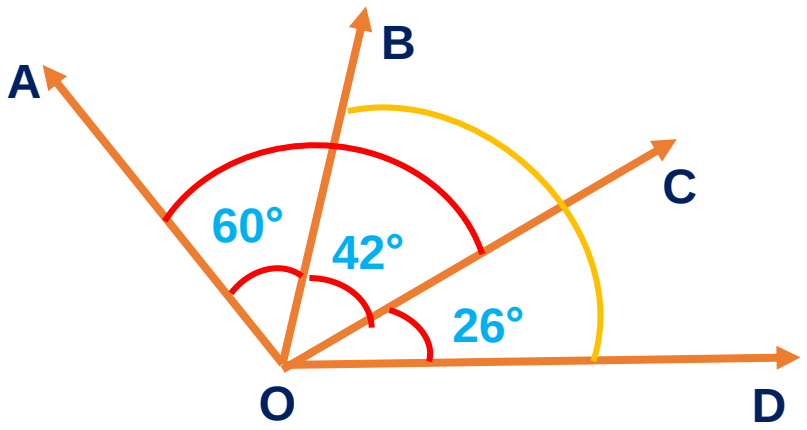
- Piden: TR
  - Si T es punto medio de $\overline{PQ}$
    ➡ PT = TQ = 19
  - Del gráfico:
    TR = 19 + 15

TR = 34u

3. Se tiene los rayos consecutivos OA, OB, OC y OD. Si m<AOB = 60°, m<BOC = 42°, m< COD = 26°. Calcule m< AOC + m< BOD

Resolución

Graficamos y ubicamos los datos correspondientes



Nos piden

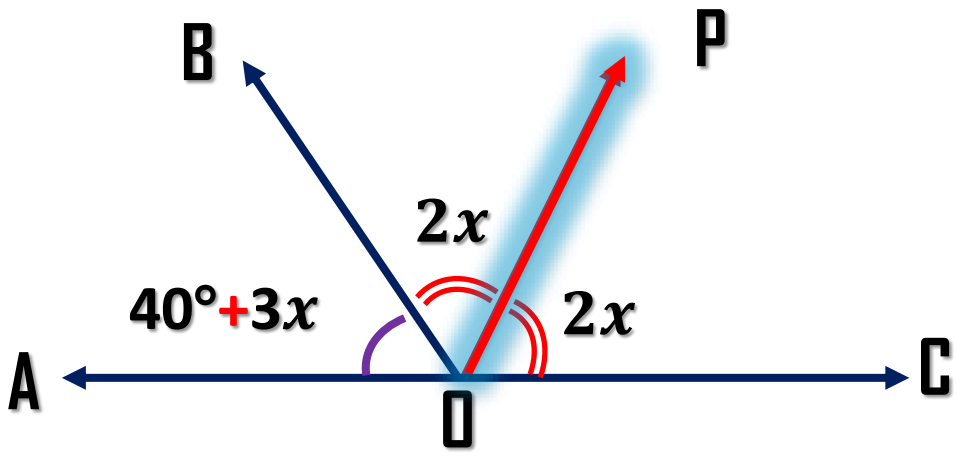
$$m < AOC + m < BOD$$

$$60° + 42° + 42° + 26°$$

$$102° + 68°$$

RPTA : 170°

4. En la figura halle el valor de X, si $\overrightarrow{OP}$ es bisectriz del <BOC



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

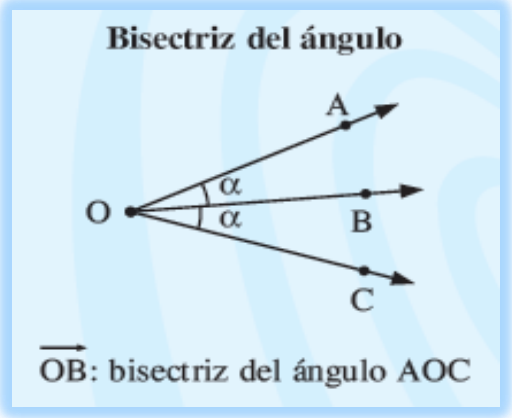
$$\Rightarrow \quad m\measuredangle COP = m\measuredangle BOP = 2x$$

En la $\overleftrightarrow{AC}$.

$$40° + 3x + 2x + 2x = 180°$$

$$7x = 140°$$

$$x = 20°$$



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

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

$$180° - 2x = 4 \cdot (90 - 3x)$$

$$180° - 2x = 360 - 12x$$

$$12x - 2x = 360 - 180°$$

$$10x = 180°$$

$$\boxed{x = 18°}$$

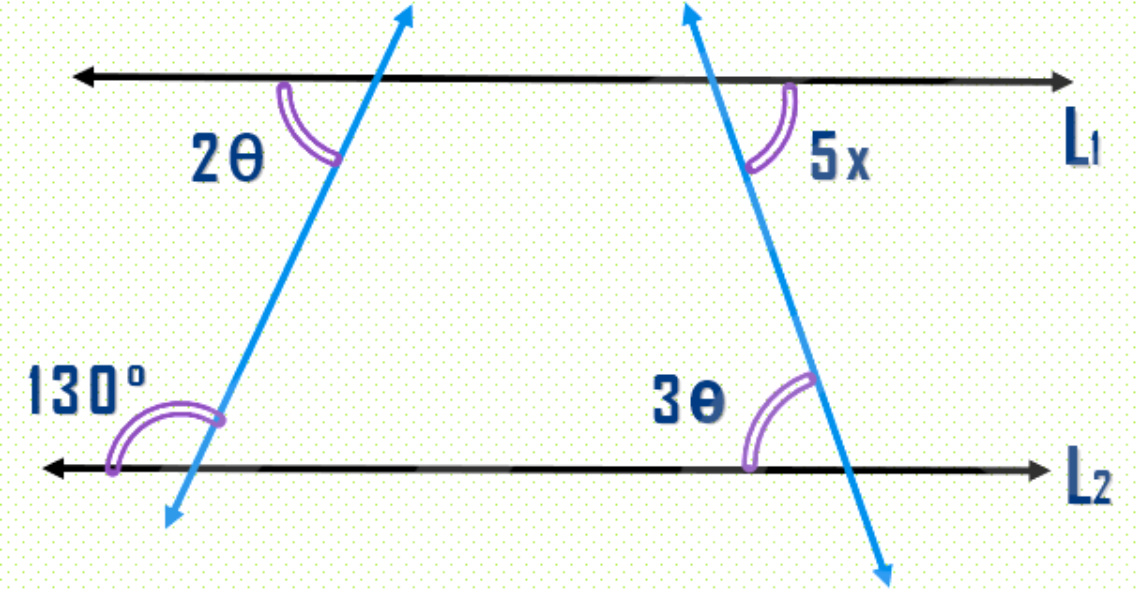
Suplemento (S)

$$S_\alpha = 180° - \alpha$$

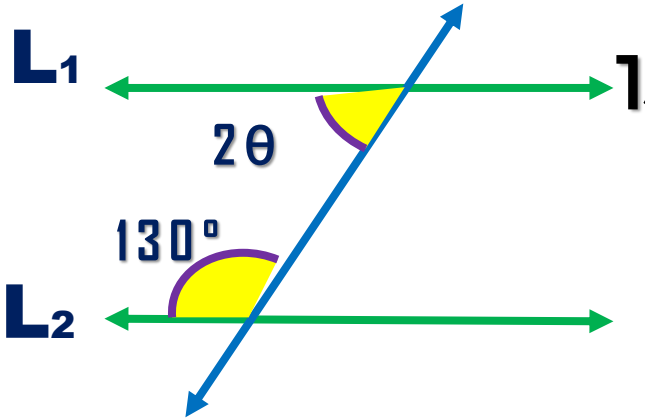
Complemento (C)

$$C_\alpha = 90° - \alpha$$

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



Áng. conjugados

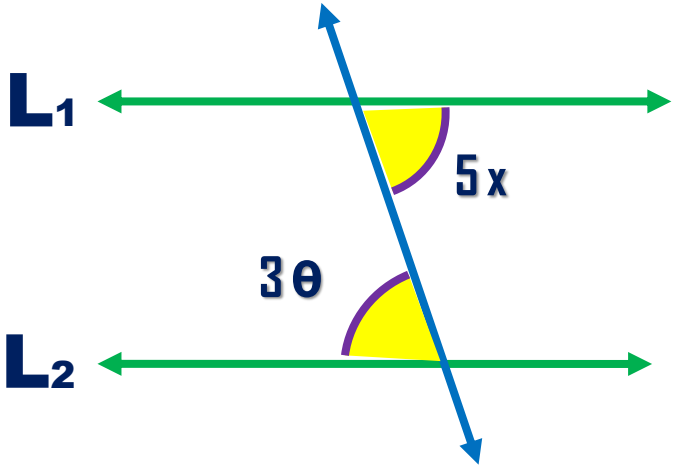


$130° + 2\theta = 180°$

$2\theta = 50°$

$\theta = 25°$

Áng. Alternos internos



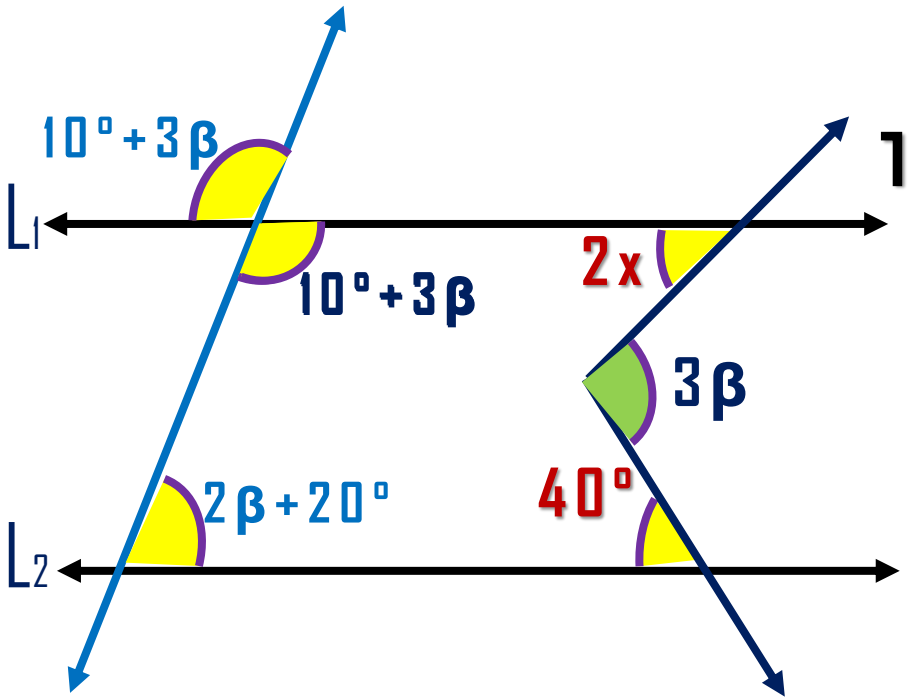
$3\theta = 5x$

$3.(25°) = 5x$

$75° = 5x$

$15° = x$

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



$10° + 3\beta + 2\beta + 20° = 180°$

$5\beta + 30° = 180°$

$5\beta = 150°$

$\beta = 30°$

$3\beta = 2x + 40°$

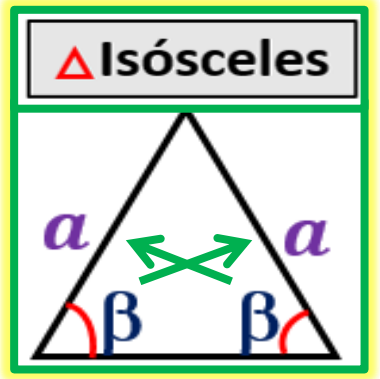
$3(30°) = 2x + 40°$

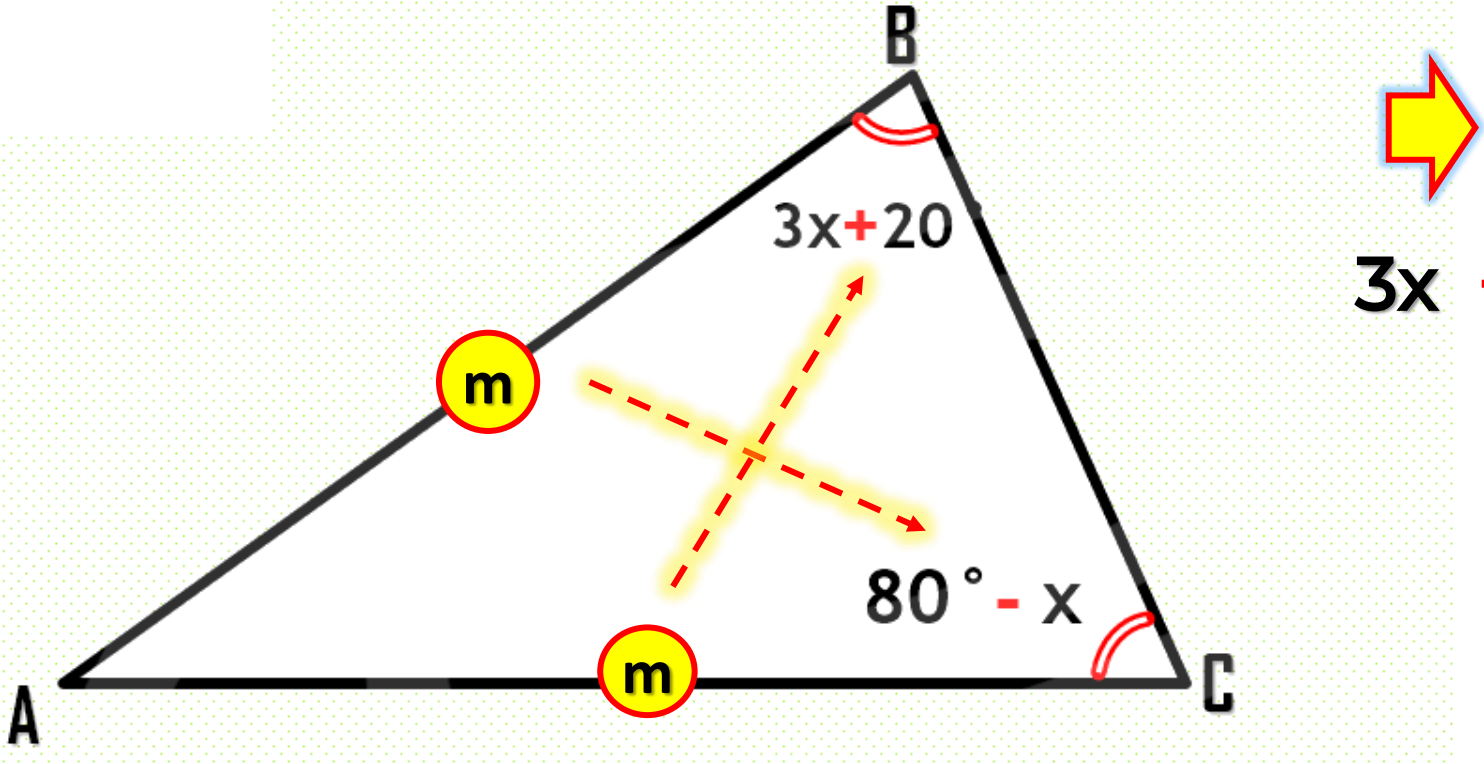
$90° = 2x + 40°$

$50° = 2x$

$25° = x$

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





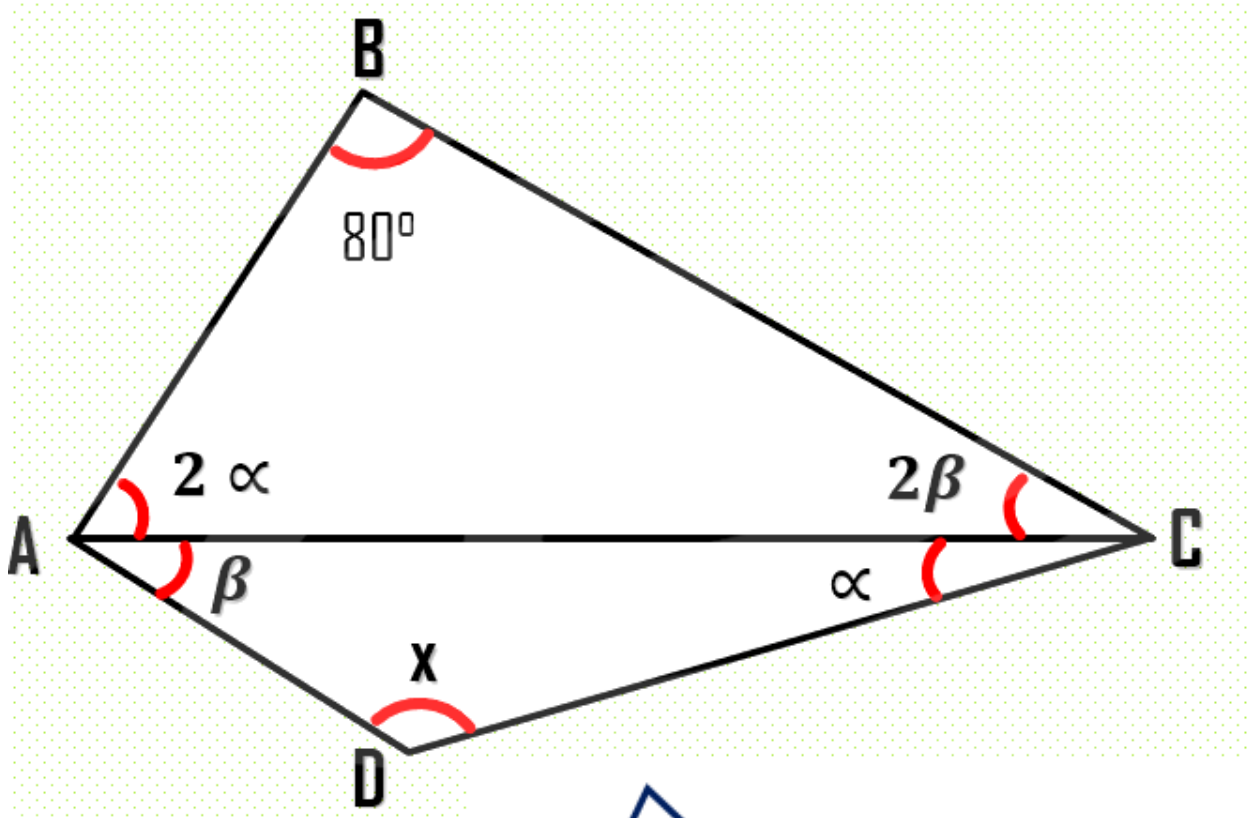
$m \measuredangle ABC = m \measuredangle ACB$

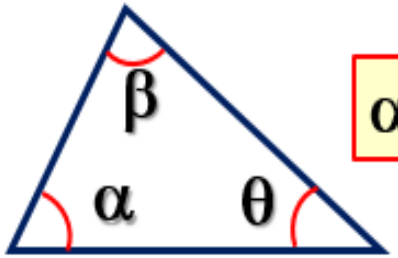
$3x + 20° = 80° - x$

$4x = 60°$

$x = 15°$

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





$\alpha + \beta + \theta = 180°$

En el Δ ABC

$$2 \propto + 2\beta + 80° = 180°$$

$$2 \propto + 2\beta = 100°$$

$$\propto + \beta = 50°$$

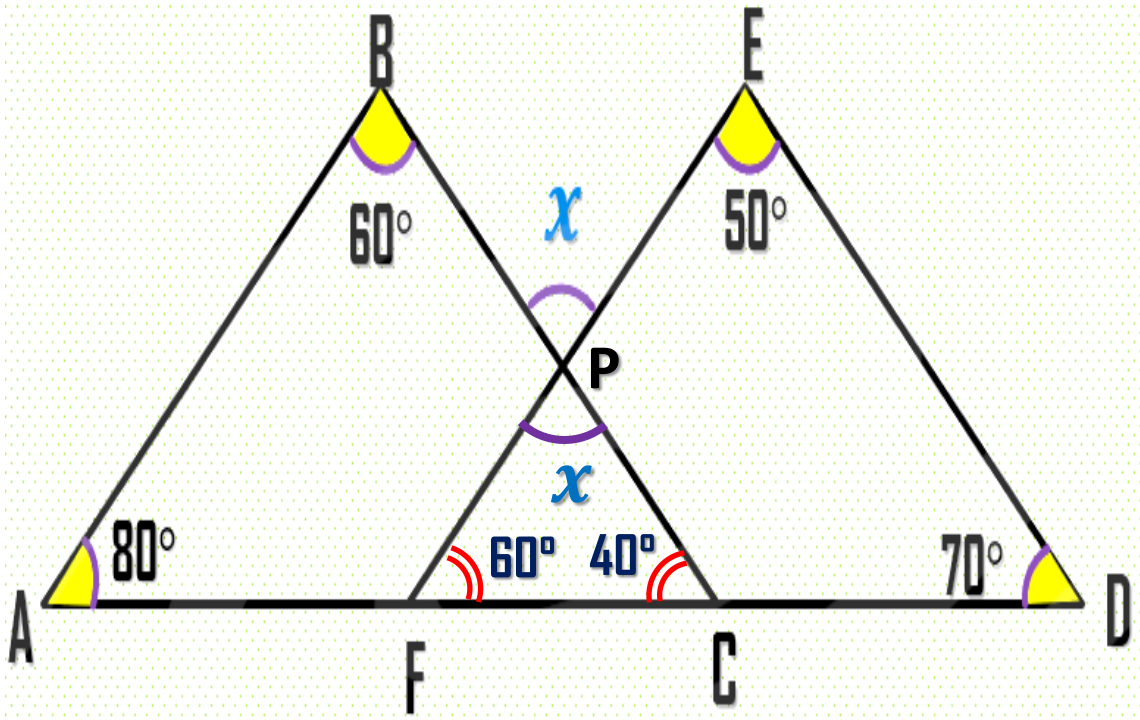
En el Δ ADC

$$\propto + \beta + x = 180°$$

$$50° + x = 180°$$

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

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