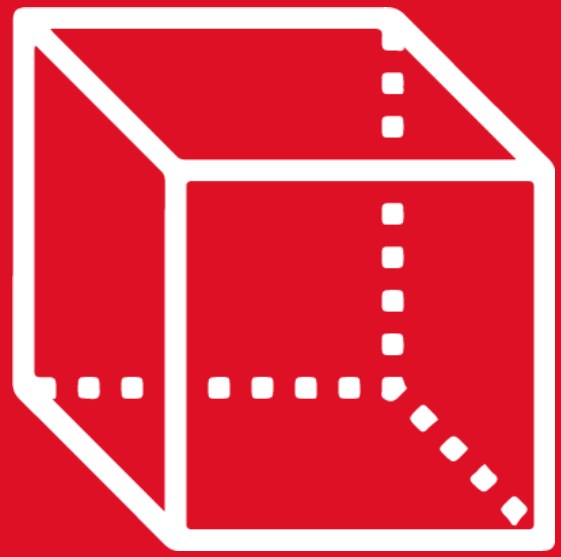
GEOMETRÍA

RETROALIMENTACIÓN

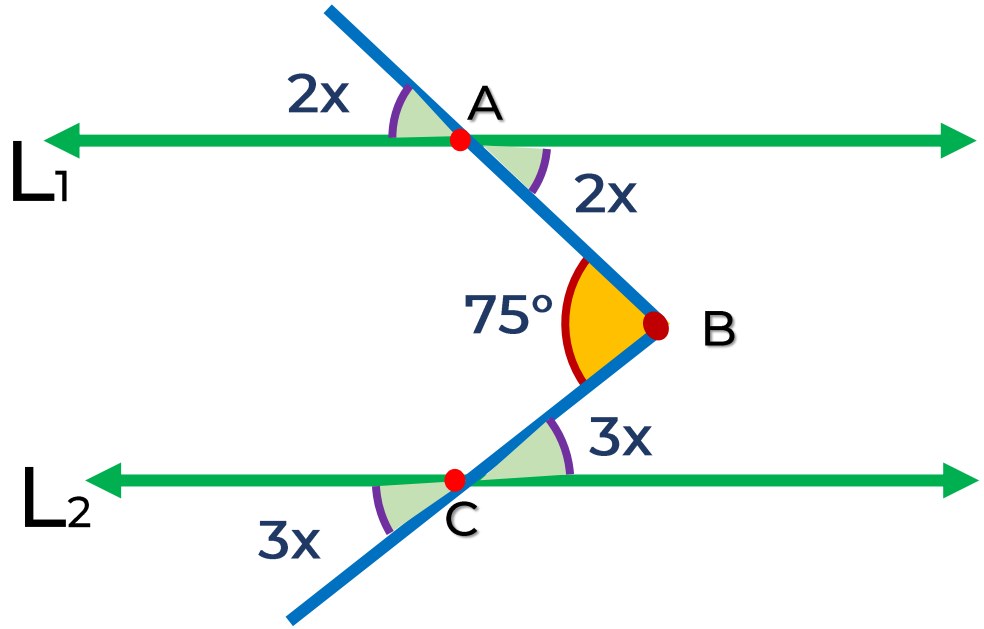


1st
SECONDARY

TOMO 2

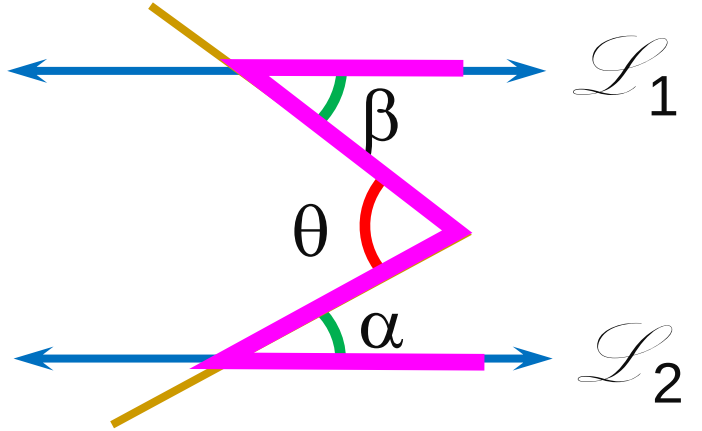
SACO OLIVEROS

1. Si $\overleftrightarrow{L_1} // \overleftrightarrow{L_2}$, halla el valor de x.



RECORDEMOS

Teorema:



Si $\mathscr{L}_1 // \mathscr{L}_2$, se cumple:

$$\alpha + \beta = \theta$$

Resolución

Dato: $\overleftrightarrow{L_1} // \overleftrightarrow{L_2}$

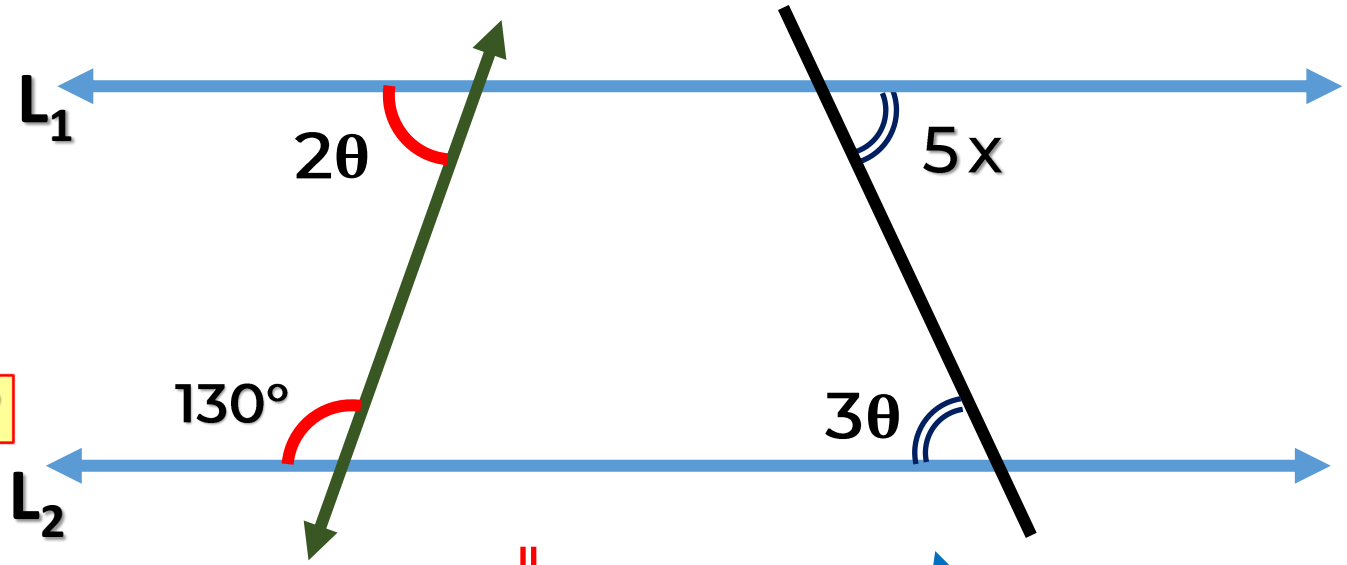
$$2x + 3x = 75°$$

$$5x = 75°$$

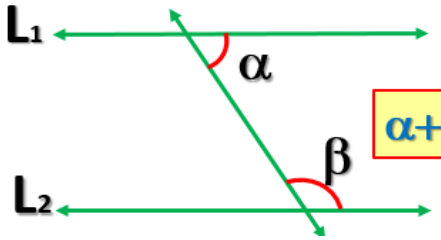
$$x = 15°$$

2. Si $\overleftrightarrow{L_1} // \overleftrightarrow{L_2}$, halla el valor de x.

Resolución

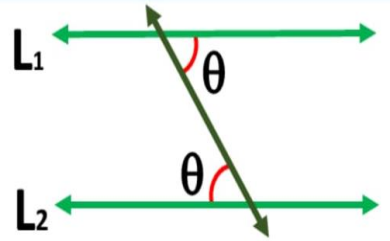


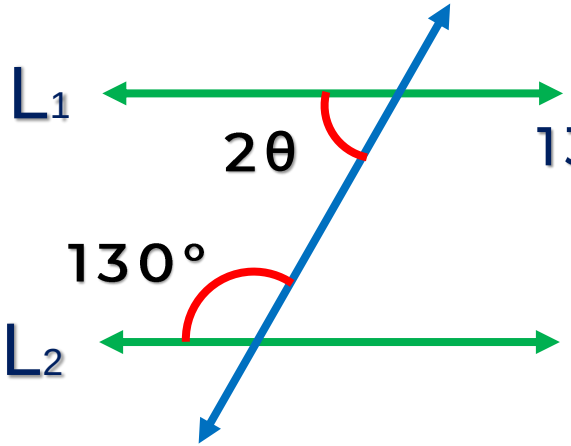
Ángulos conjugados



$\alpha+\beta=180°$

ÁNGULOS ALTERNOS INTERNOS

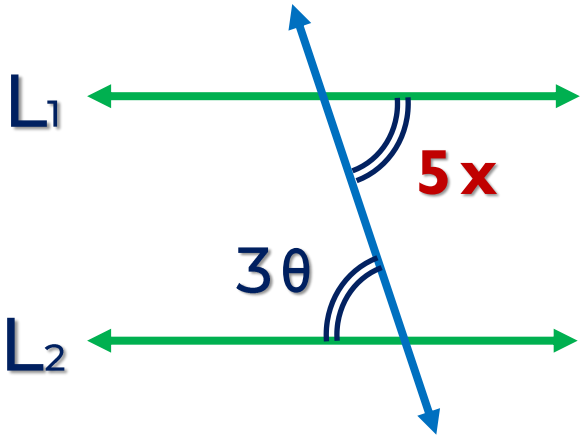




$130° + 2\theta = 180°$

$2\theta = 50°$

$\theta = 25°$



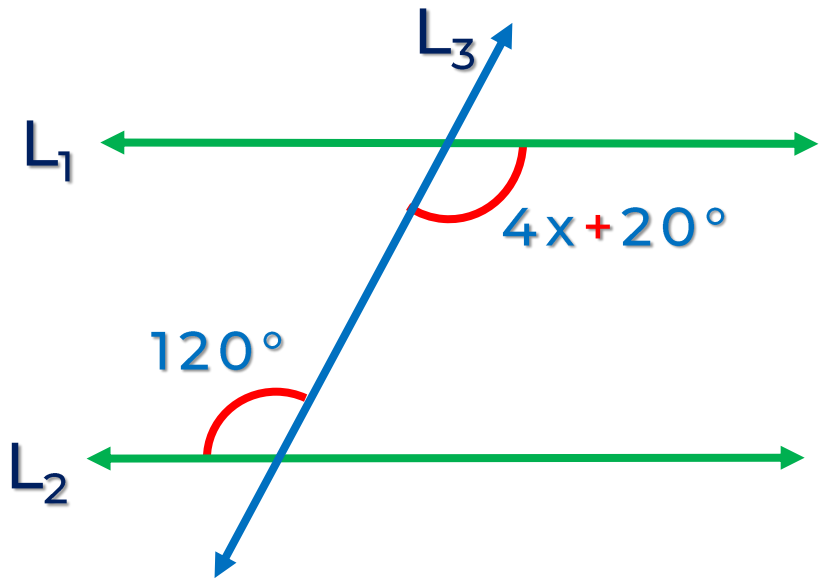
$3(25) = 5x$

$75 = 5x$

$x = 15°$

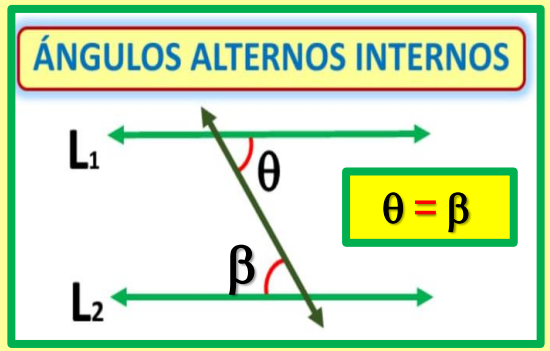
3. Se tiene dos rectas paralelas $\overleftrightarrow{L_1}$ // $\overleftrightarrow{L_2}$ y una recta secante $\overleftrightarrow{L_3}$, formándose los ángulos alternos internos $4x + 20°$ y $120°$, halle le valor de x.

Resolución



RECORDEMOS

Teorema Si $\mathscr{L}_1$ // $\mathscr{L}_2$, se cumple:

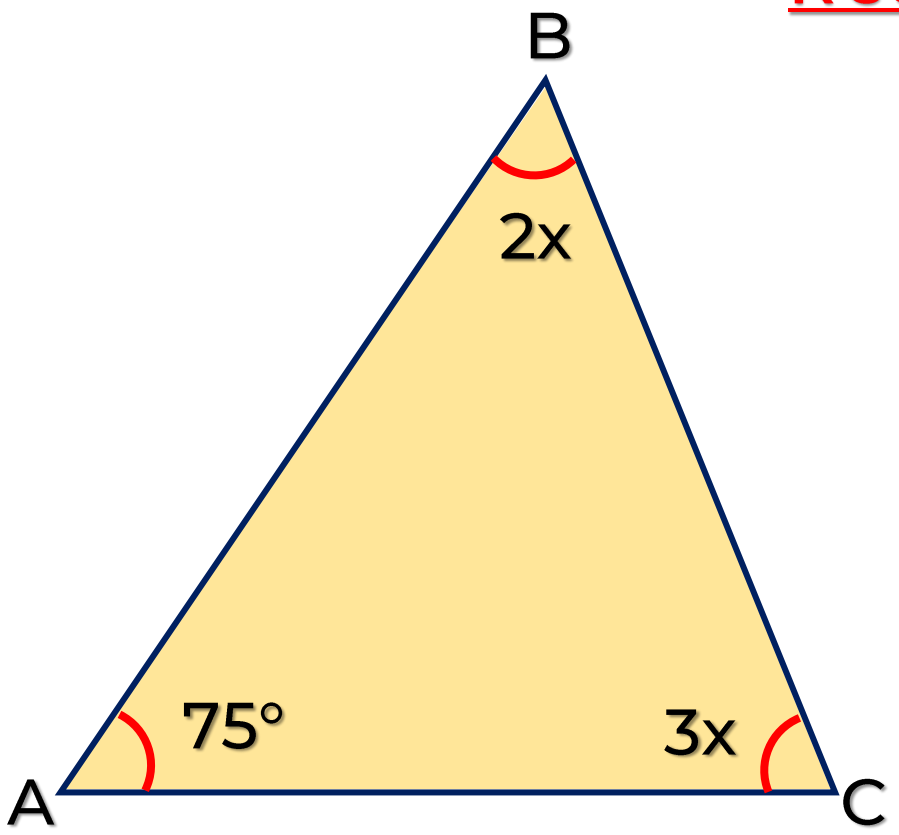


$$4x + 20° = 120°$$

$$4x = 100°$$

$$x = 25°$$

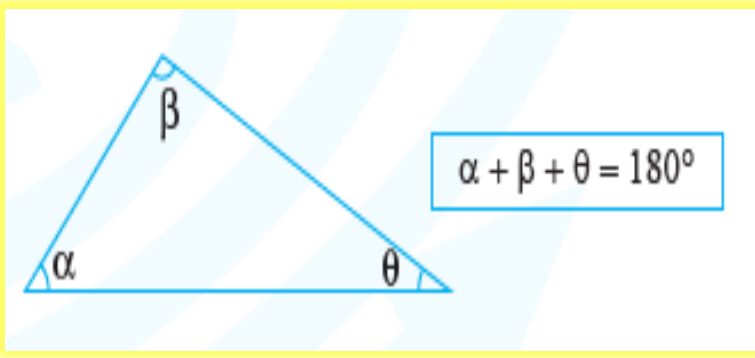
4. En el gráfico, halla el valor de x.



Resolución

RECORDEMOS

Teorema SUMA m∡ INTERIORES

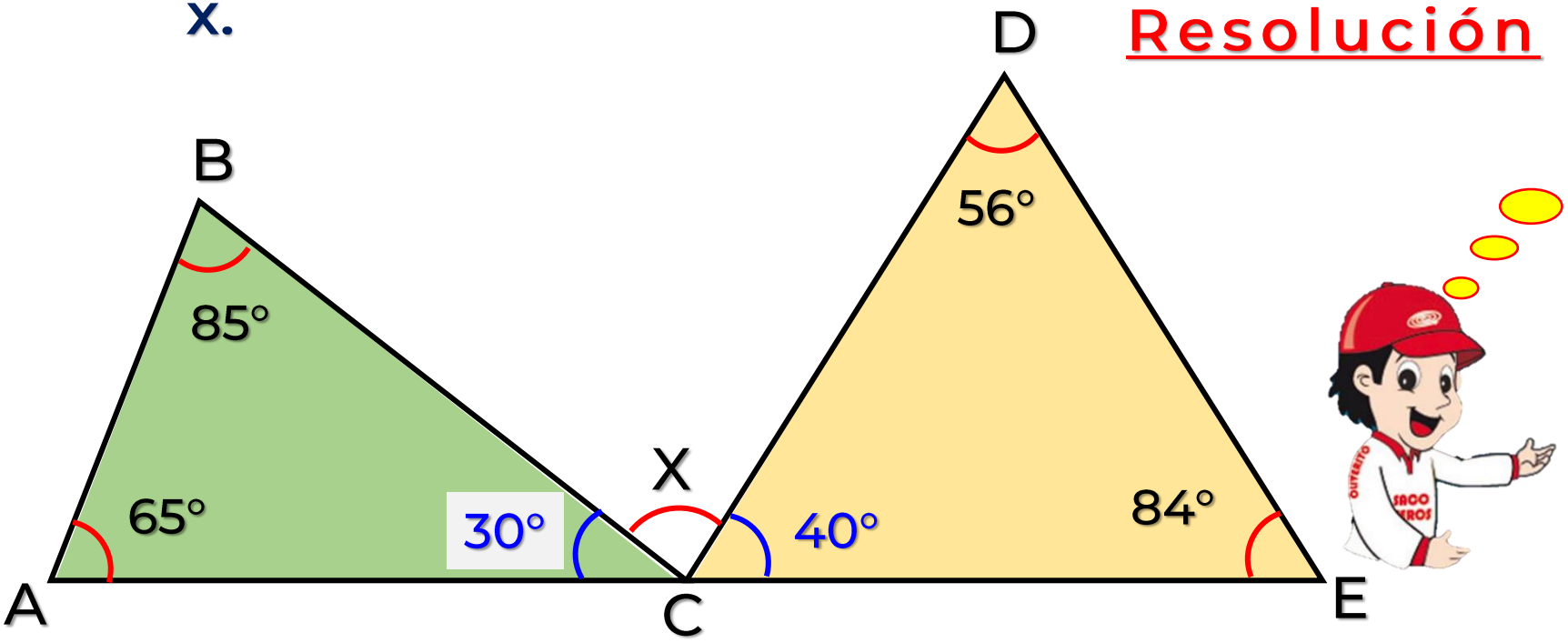


$$2x + 3x + 75° = 180°$$

$$5x = 105°$$

$$x = 21°$$

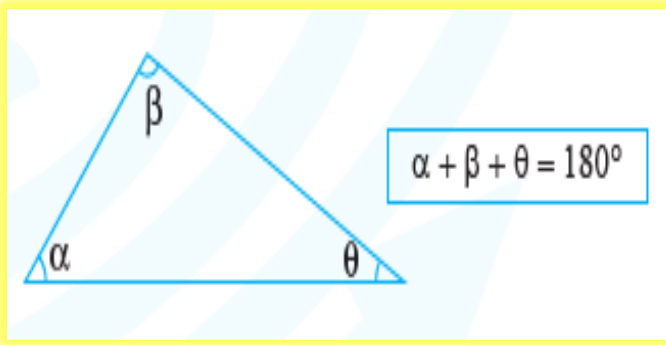
5. En el gráfico, halla el valor de x.



Resolución

RECORDEMOS

Teorema SUMA m∡ INTERIORES



- En el Δ ABC

$65° + 85° + \alpha = 180°$

$\alpha = 30°$

- En el Δ CDE

$56° + 84° + \beta = 180°$

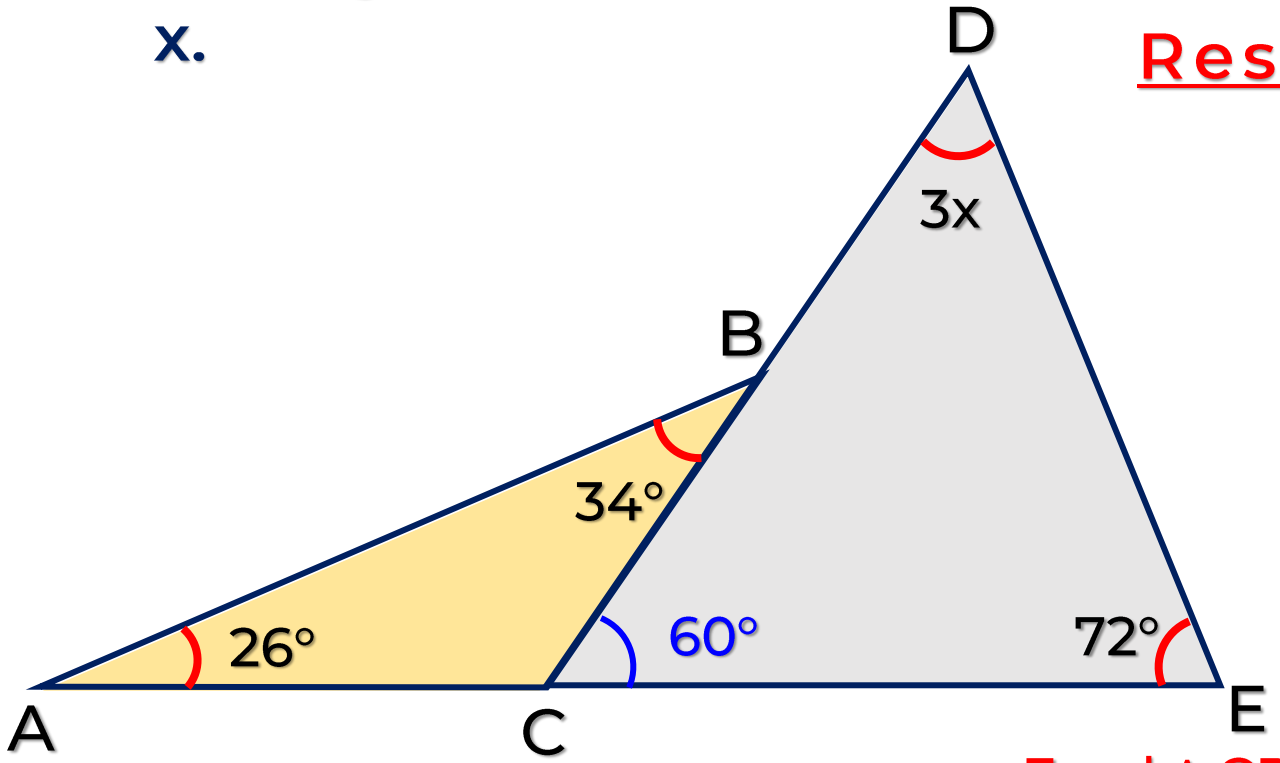
$\beta = 40°$

- En el vértice C

$30° + x + 40° = 180°$

$x = 110°$

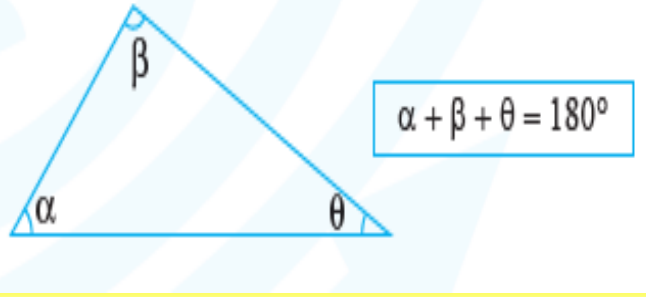
6. En el gráfico, halla el valor de x.



Resolución

RECORDEMOS

Teorema SUMA m∡ INTERIORES



θ = β + α

- En el Δ ABC

$26° + 34° = \alpha$

$\alpha = 60°$

- En el Δ CDE

$60° + 3x + 72° = 180°$

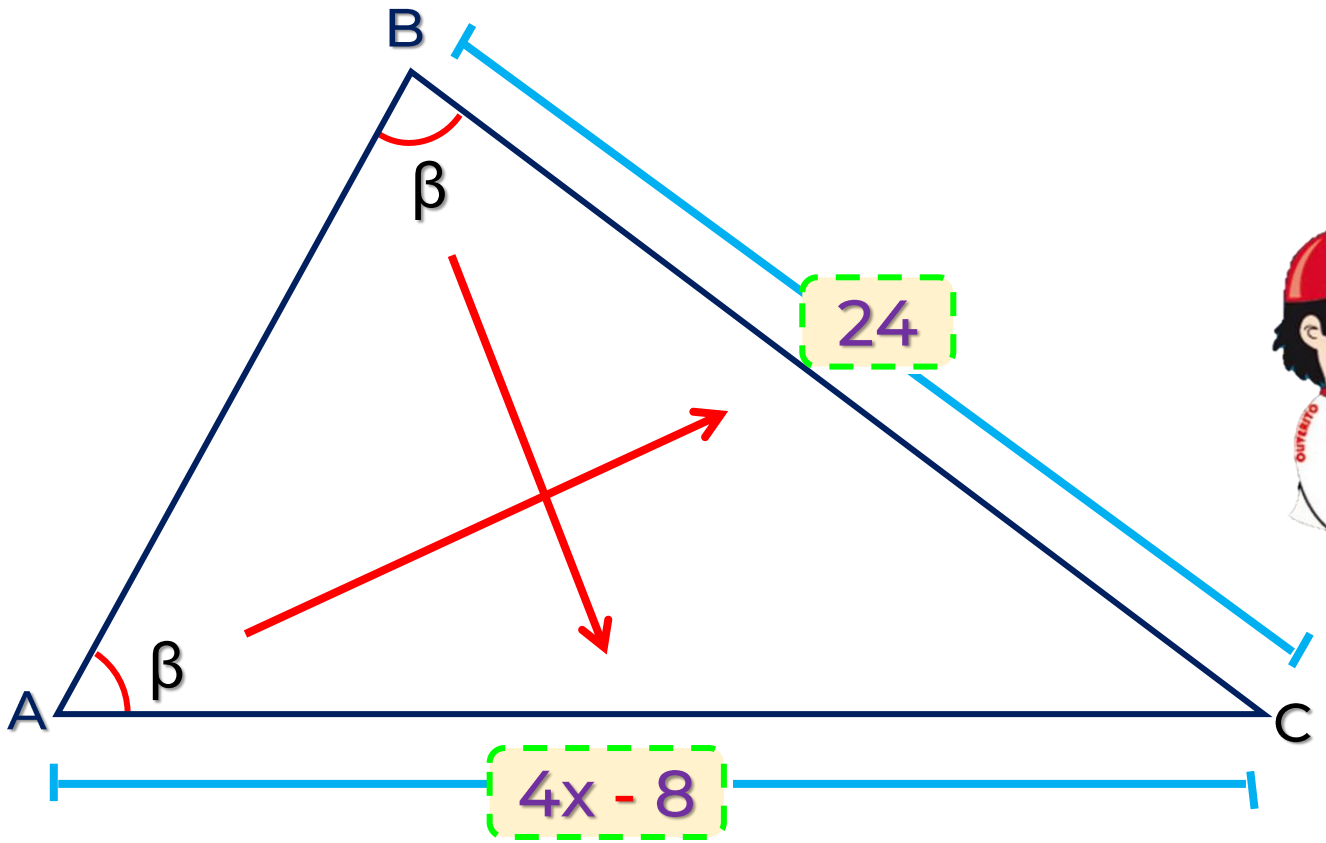
$3x + 132° = 180°$

$3x = 48°$

$x = 16°$

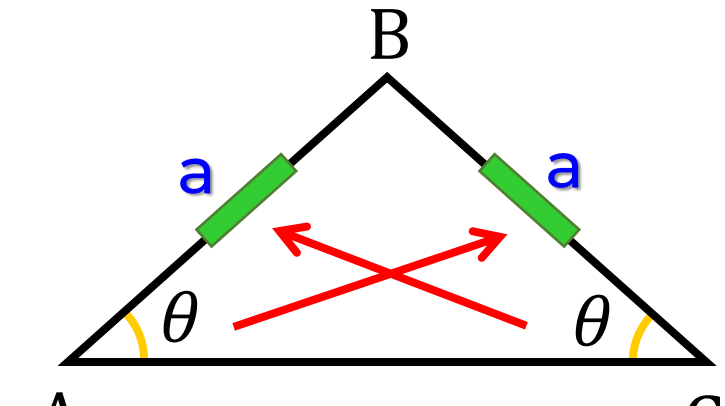
7. En el gráfico, halla el valor de x.

Resolución



RECORDEMOS

Triángulo isósceles



Si: $m\measuredangle A = m\measuredangle C$

$\Rightarrow AB = BC$

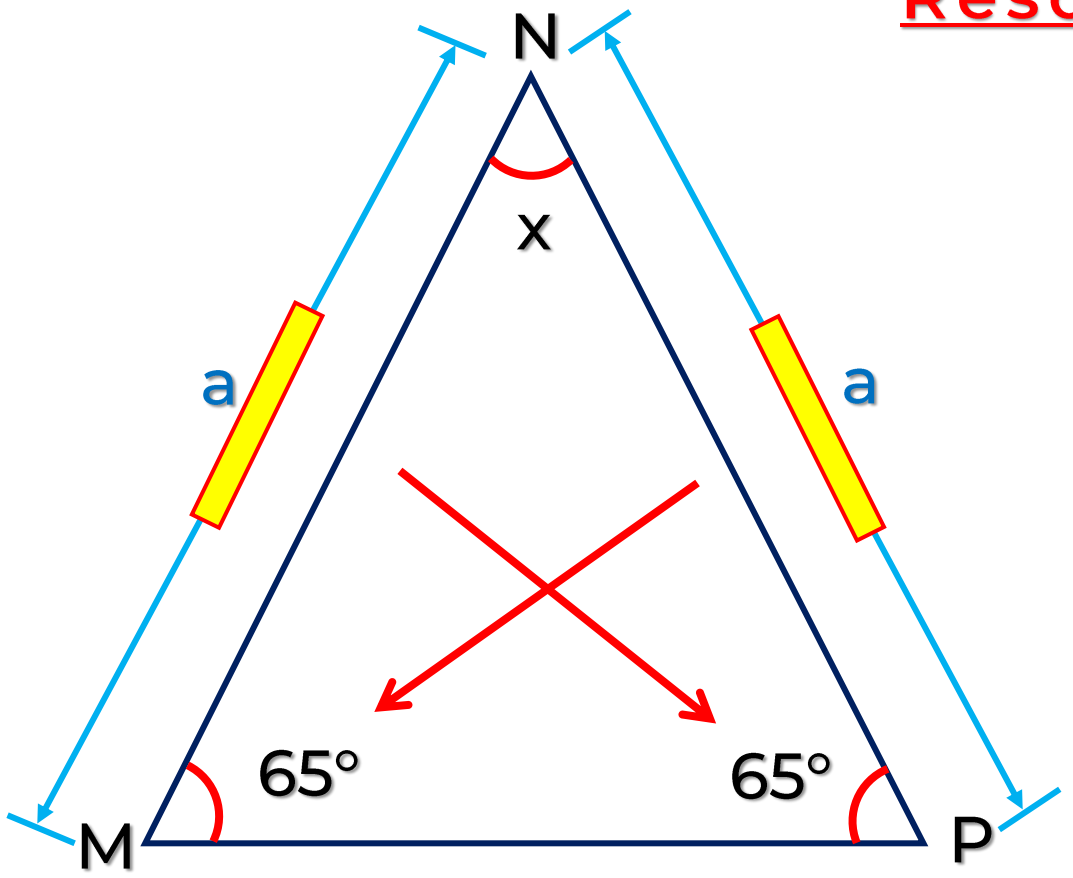
$4x - 8 = 24$

$4x = 32$

$x = 8$

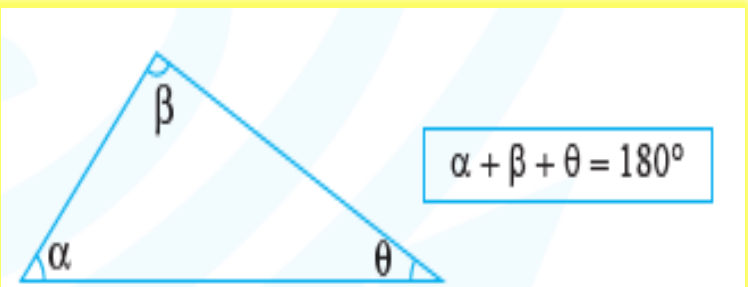
7. En un triángulo MNP; si MN = NP y m∢ NMP = 65°, halle el medida del ángulo MNP.

Resolución



RECORDEMOS

Teorema SUMA m∢ INTERIORES



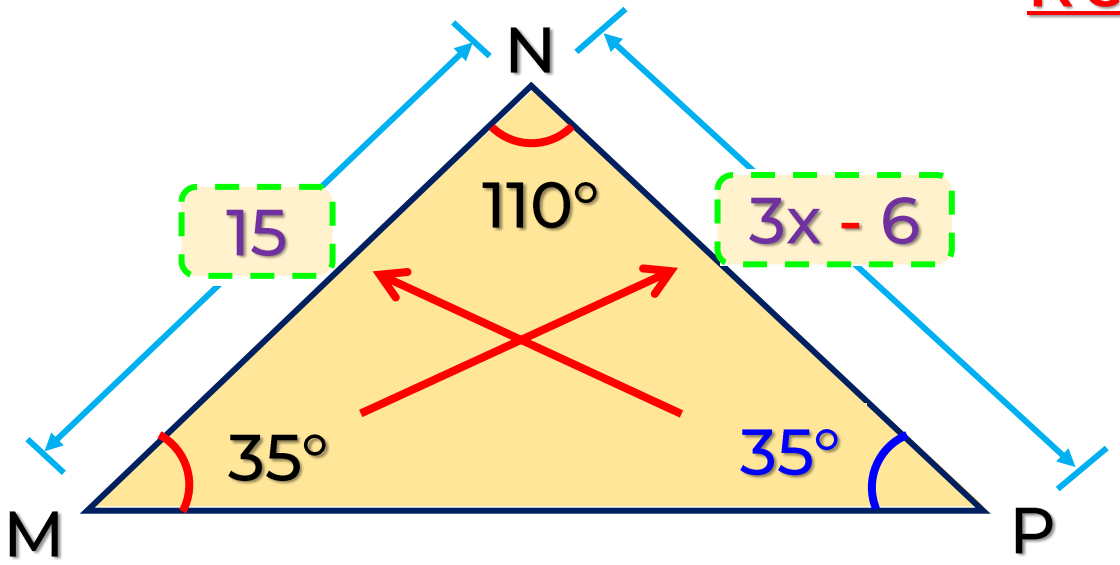
$\Rightarrow m\measuredangle A = m\measuredangle C$

$65° + 65° + x = 180°$

$130° + x = 180°$

$x = 50°$

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



Resolución

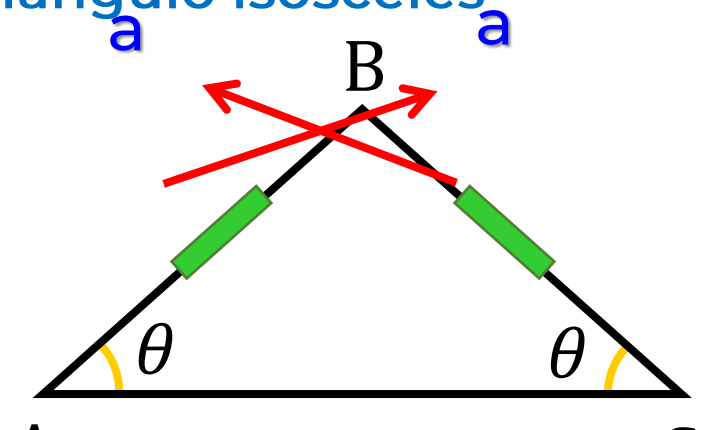
- En el Δ ABC

$$110° + 35° + \beta = 180°$$

$$\beta = 35°$$

RECORDEMOS

Triángulo isósceles



Si: $m\measuredangle A = m\measuredangle C$

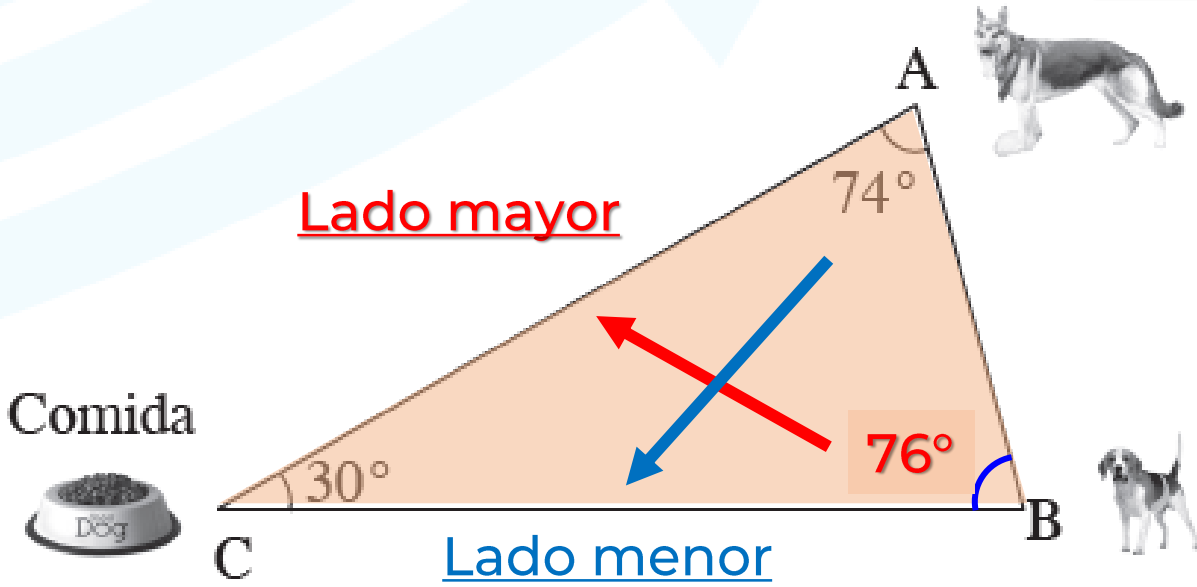
$\Rightarrow AB = BC$

$3x = 21$

$x = 7$

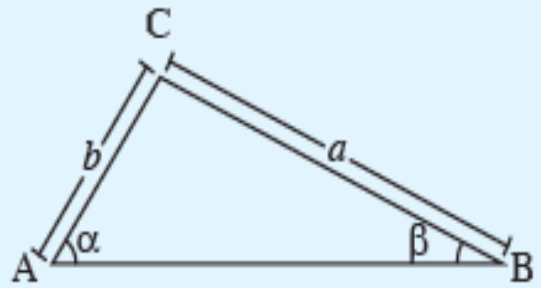
10. En la figura ¿cuál de los dos perros s encuentran mas lejos de su comida ?

Resolución



RECORDEMOS

Teorema Correspondencia



$a > b$

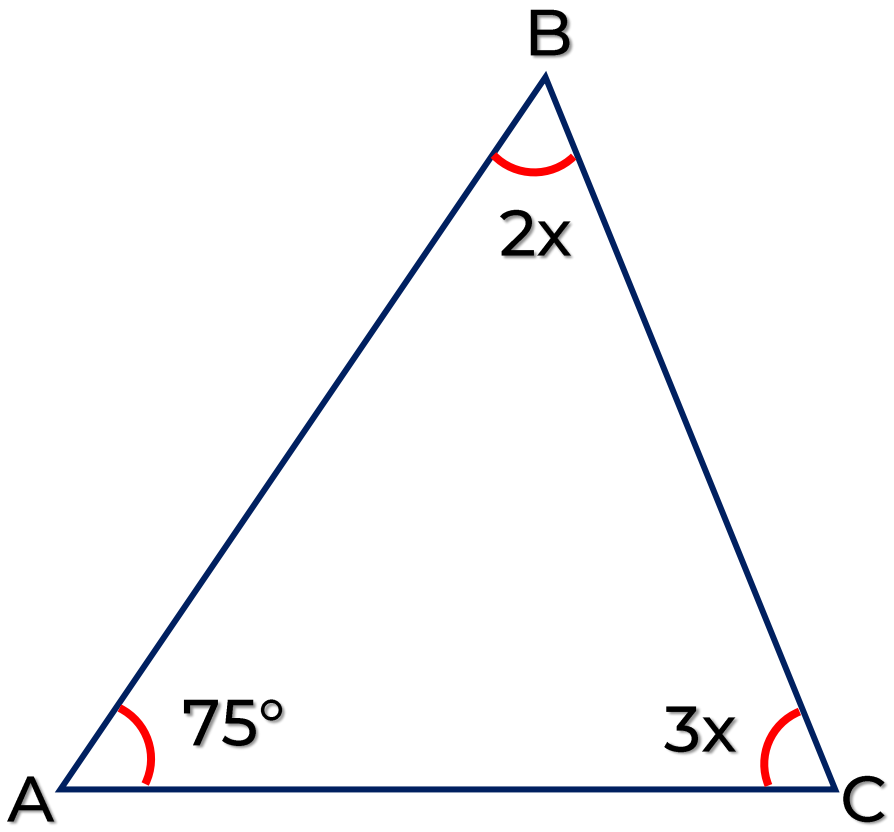
$\Rightarrow \alpha > \beta$

- En el Δ ABC

$$30° + 74° + \alpha = 180°$$

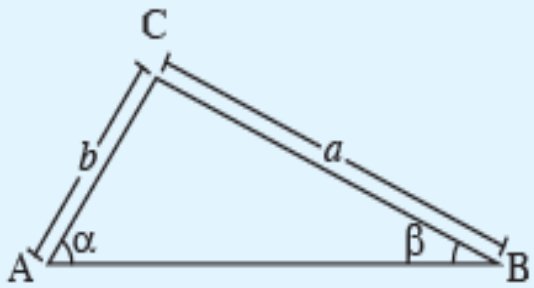
$$\alpha = 76°$$

$\therefore$ El perro A se encuentra más lejos



RECORDEMOS

Teorema Correspondencia



$a > b$

$\Rightarrow \alpha > \beta$