

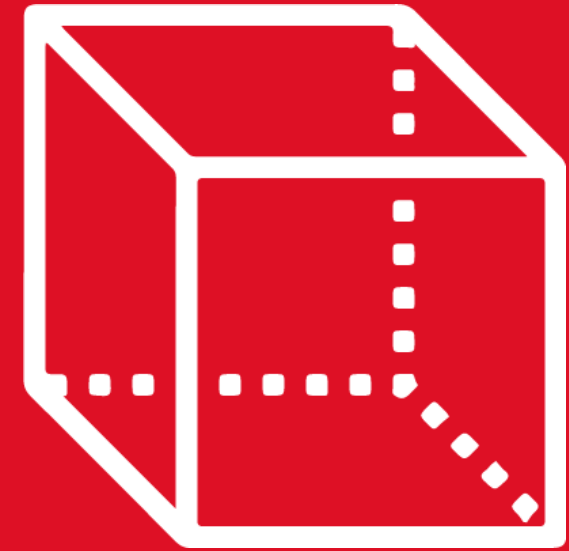


# GEOMETRÍA

## RETROALIMENTACIÓN

**2n**  
SECONDARY  
**d**

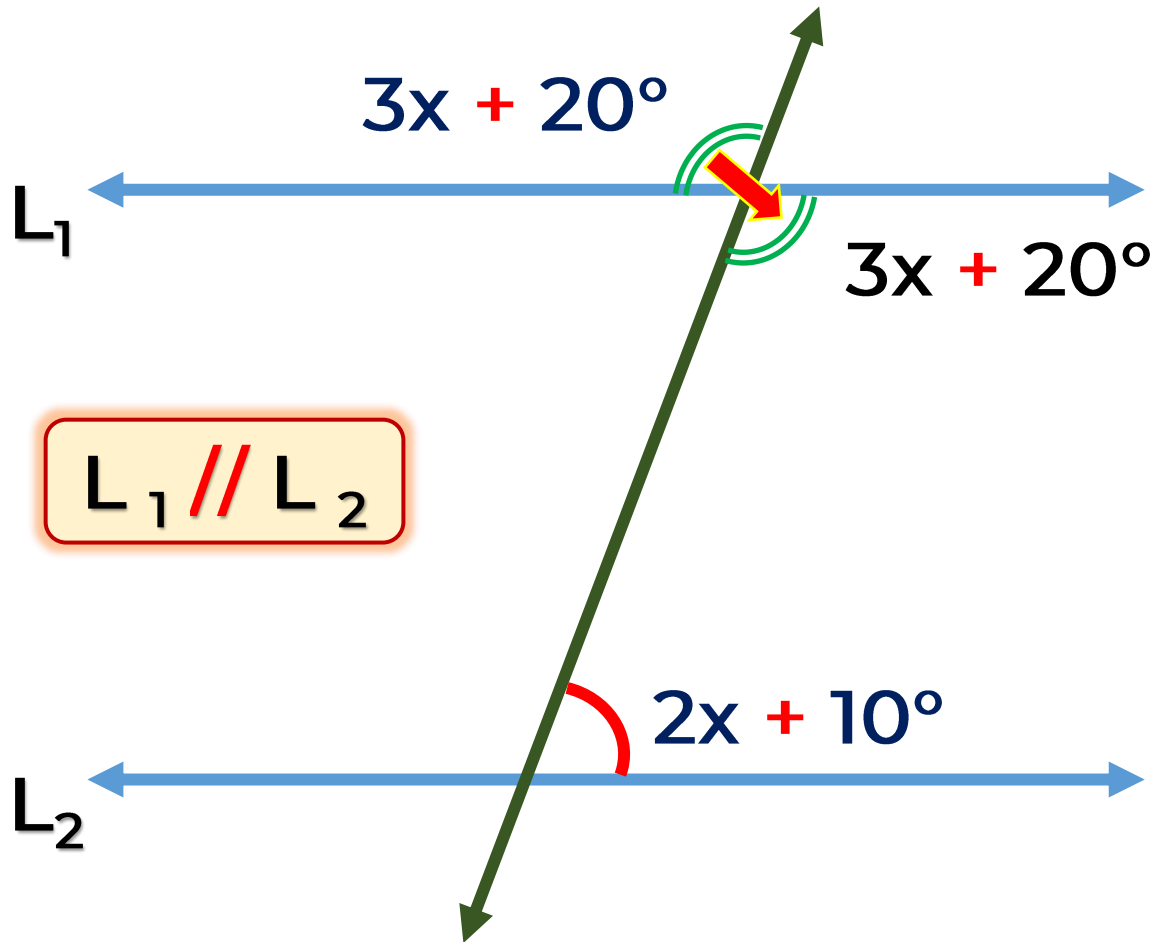
**TOMO 2**



 **SACO OLIVEROS**

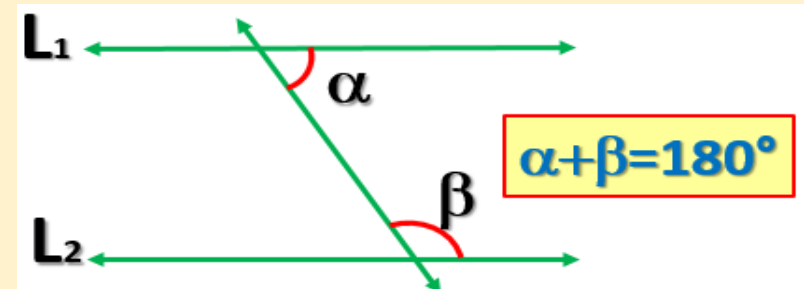


1. Si  $\vec{L_1} // \vec{L_2}$ , halla el valor de  $x$ .



## RECORDEMOS

Ángulos conjugados internos:



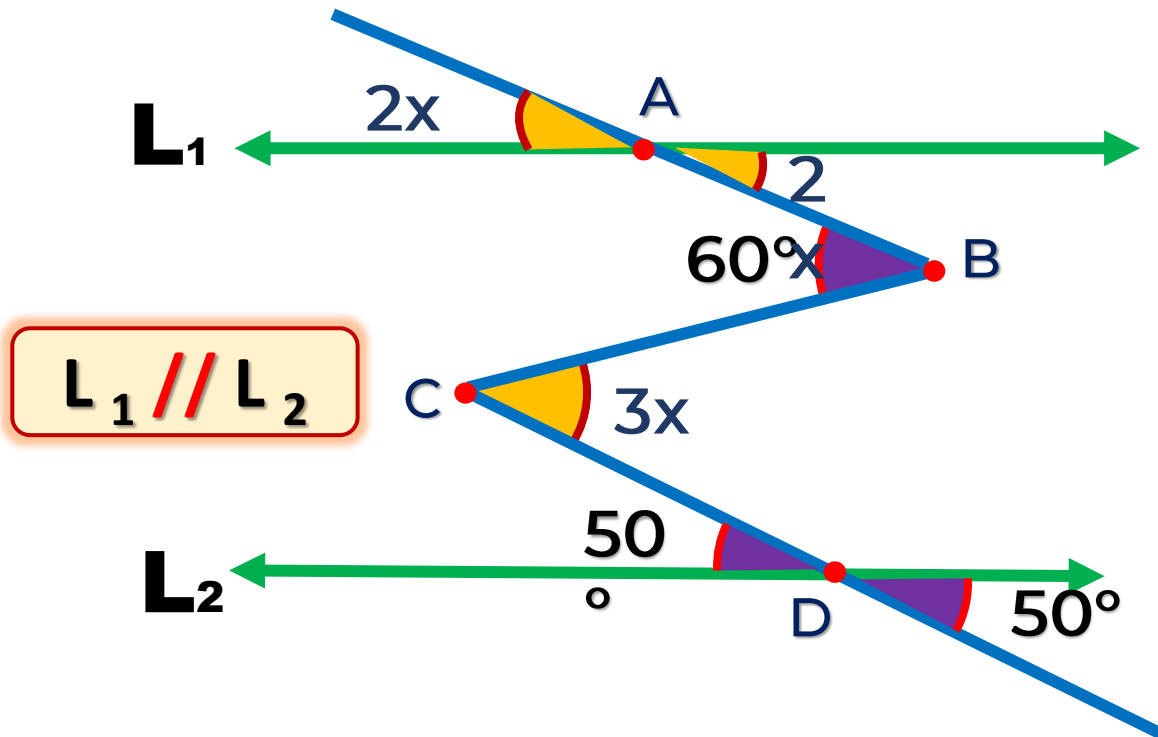
$$x + 20^\circ + 2x + 10^\circ = 180^\circ$$

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

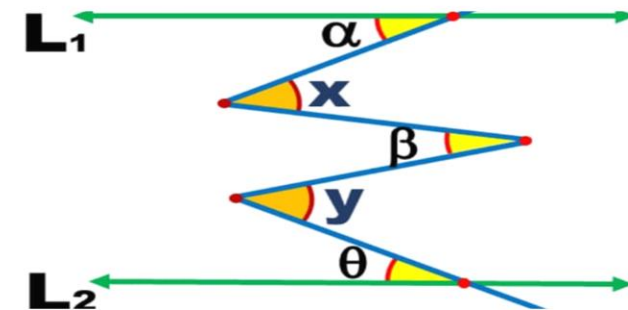
$$5x = 150^\circ$$

$$x = 30^\circ$$

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



## RECORDEMOS



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



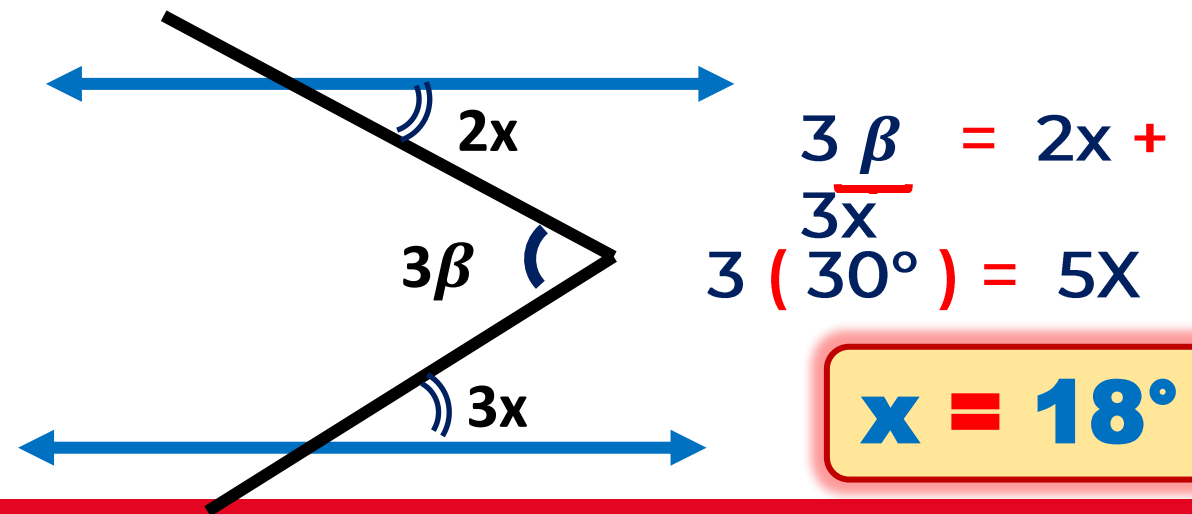
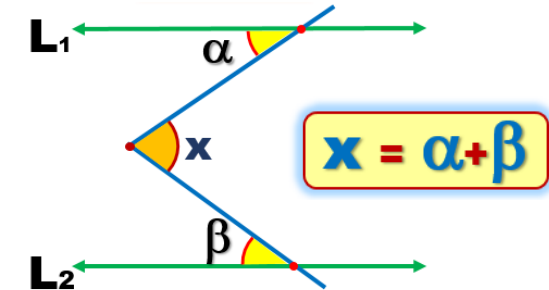
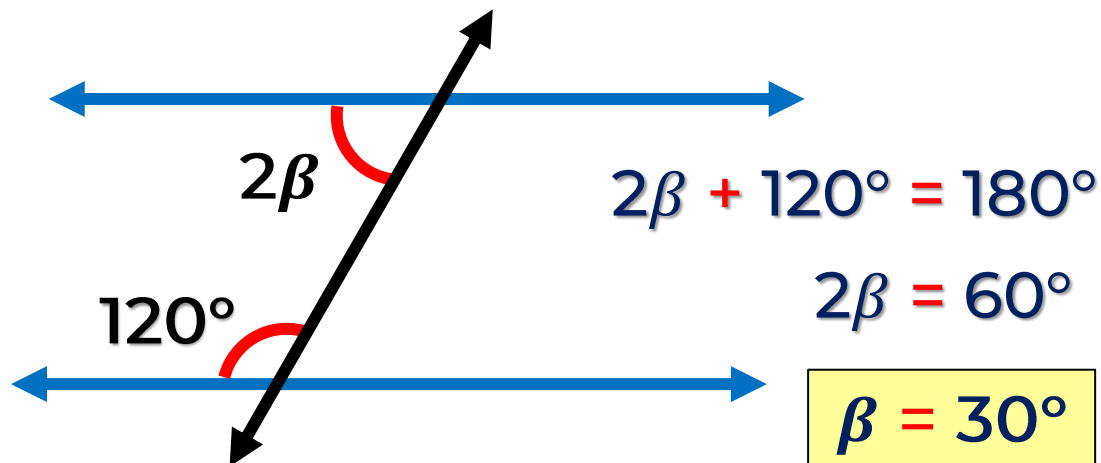
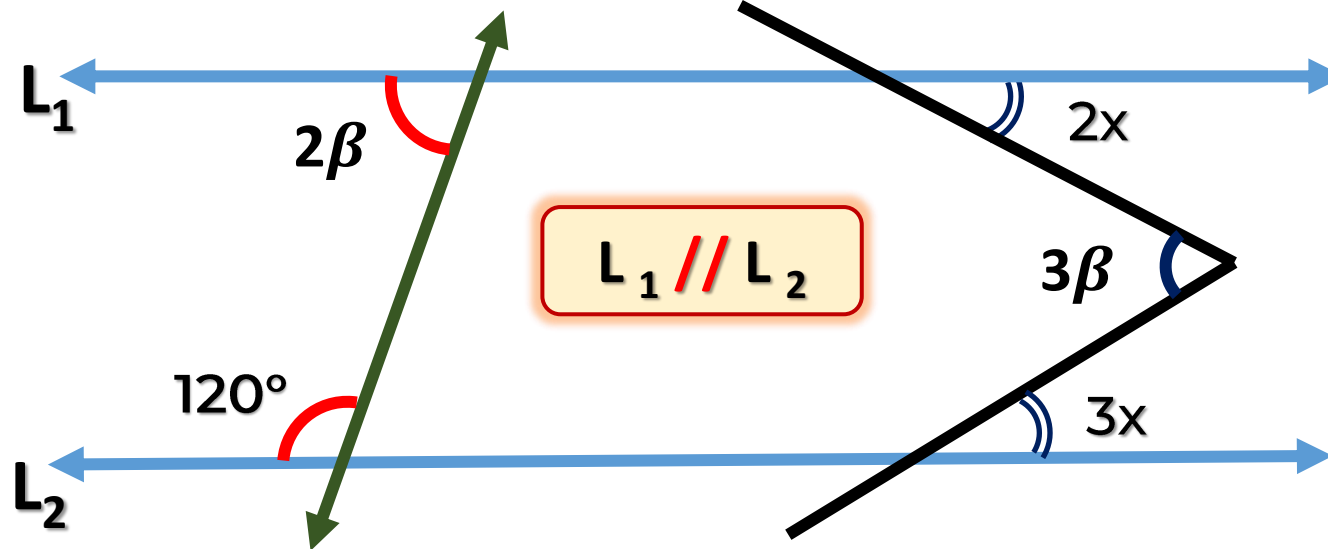
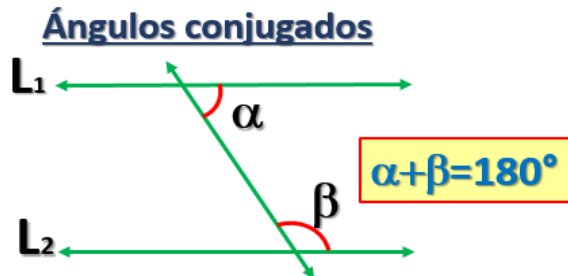
$$3x + 2x = 60^\circ + 50^\circ$$

$$5x = 110^\circ$$

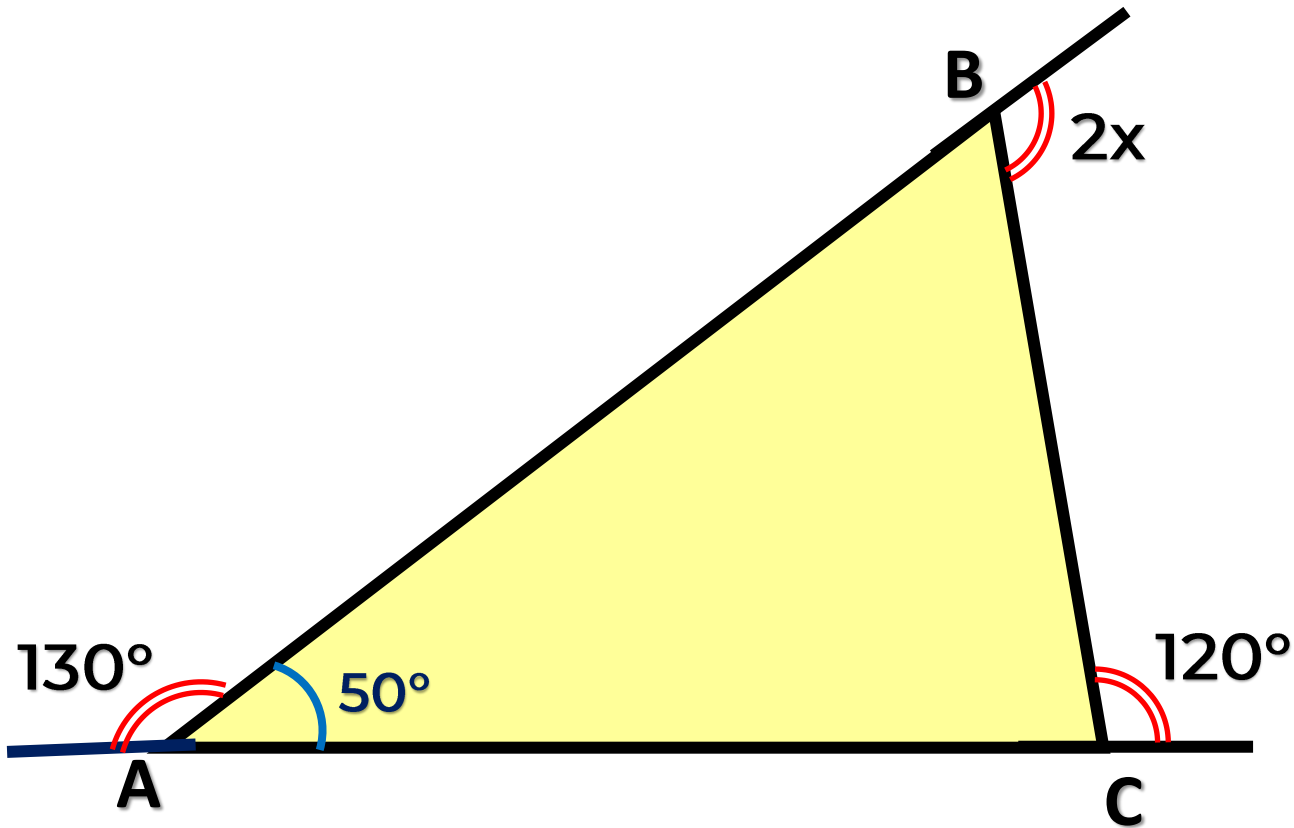
$$x = 22^\circ$$



3. Si  $\vec{L_1} // \vec{L_2}$ , halla el valor de  $x$ .

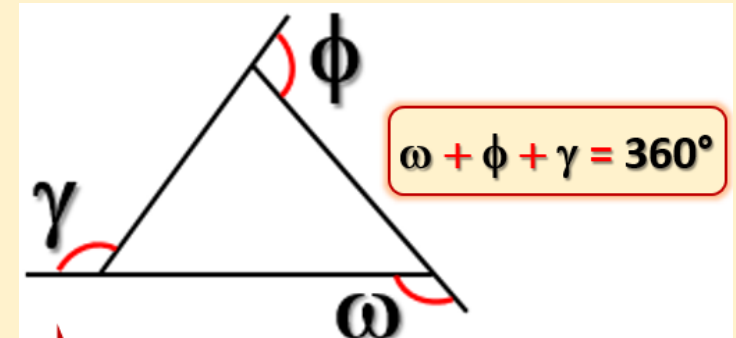


4. En el gráfico, halla el valor de  $x$ .



## RECORDEMOS

Suma de ángulos externos:



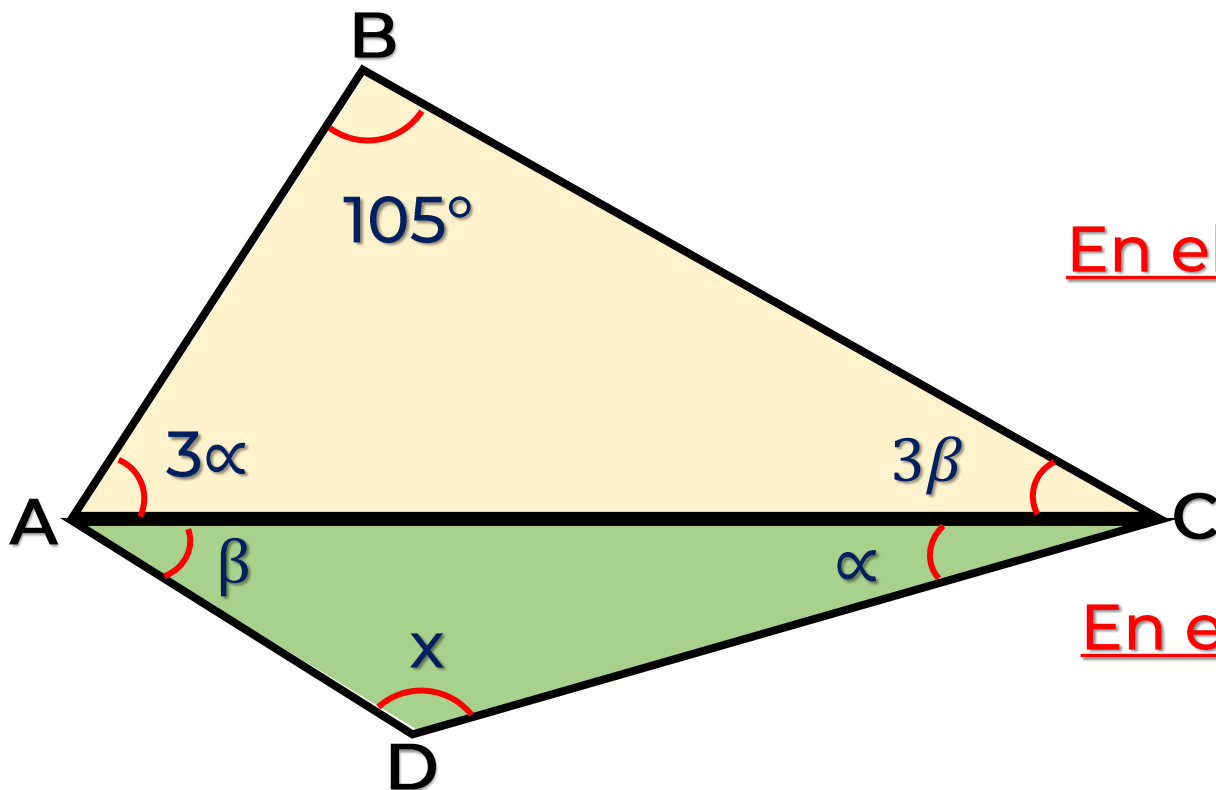
$$2x + 130^\circ + 120^\circ = 360^\circ$$

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

$$2x = 110^\circ$$

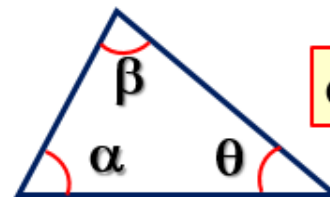
$$\mathbf{x = 55^\circ}$$

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



## RECORDEMOS

Suma de ángulos internos:



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

En el  $\Delta ABC$ :  $3\alpha + 3\beta + 105^\circ = 180^\circ$

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

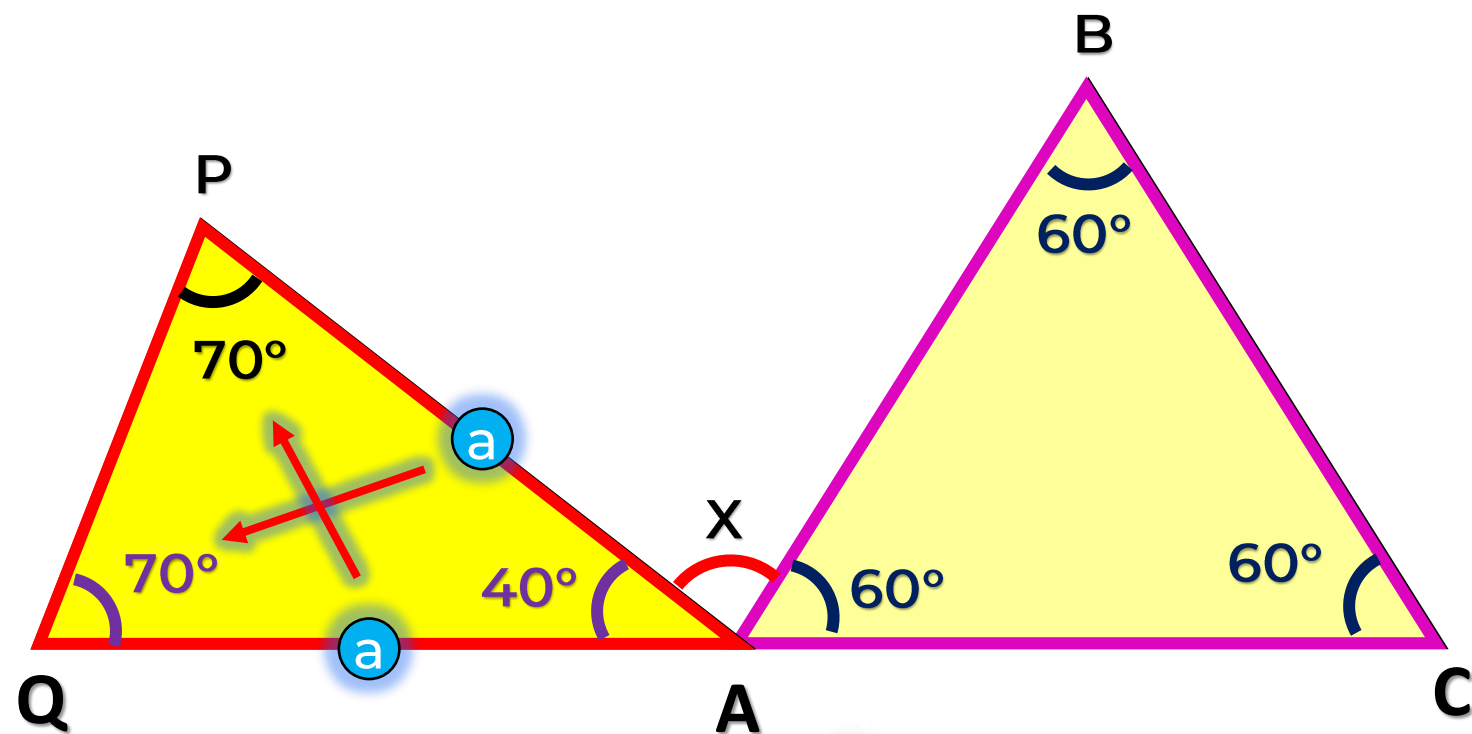
$$\alpha + \beta = 25^\circ$$

En el  $\Delta ADC$ :  $\alpha + \beta + x = 180^\circ$

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

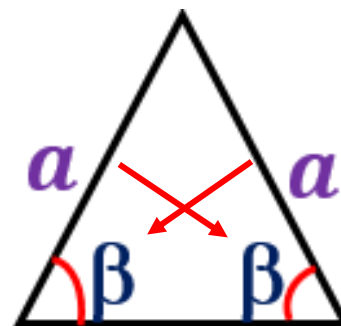
$$x = 155^\circ$$

6. Si el triángulo ABC es equilátero y  $AP = AQ$ . Hallar el valor de  $x$

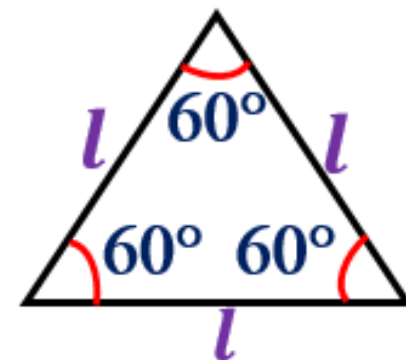


**△ Isósceles**

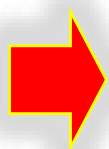
$$AP = AQ$$



**△ Equilátero**



En el vértice A



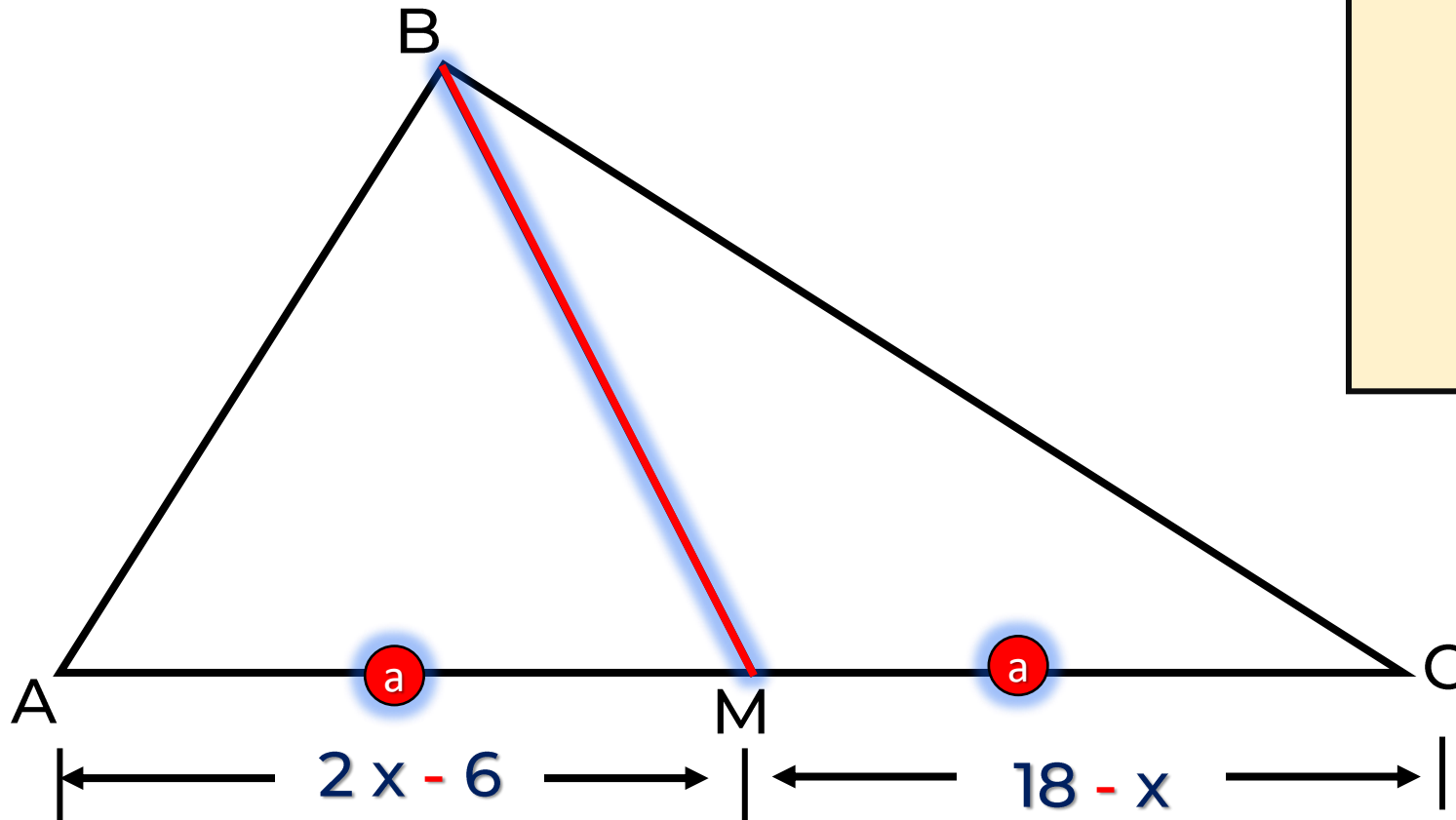
$$40^\circ + x + 60^\circ = 180^\circ$$

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

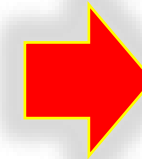
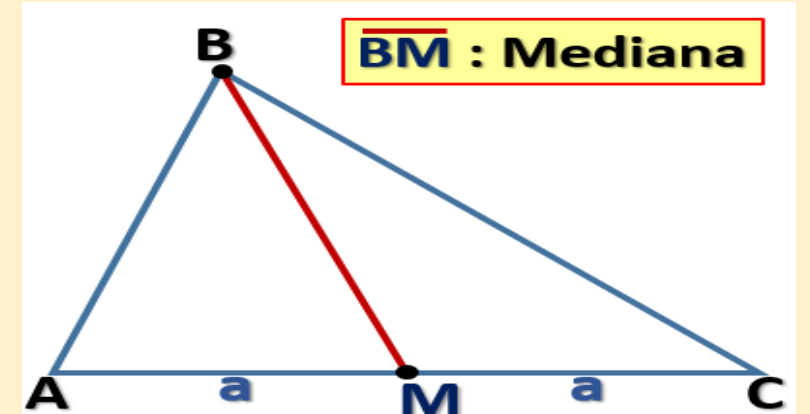
$$x = 80^\circ$$



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



## RECORDEMOS



$$AM = MC$$

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

$$3x = 24$$

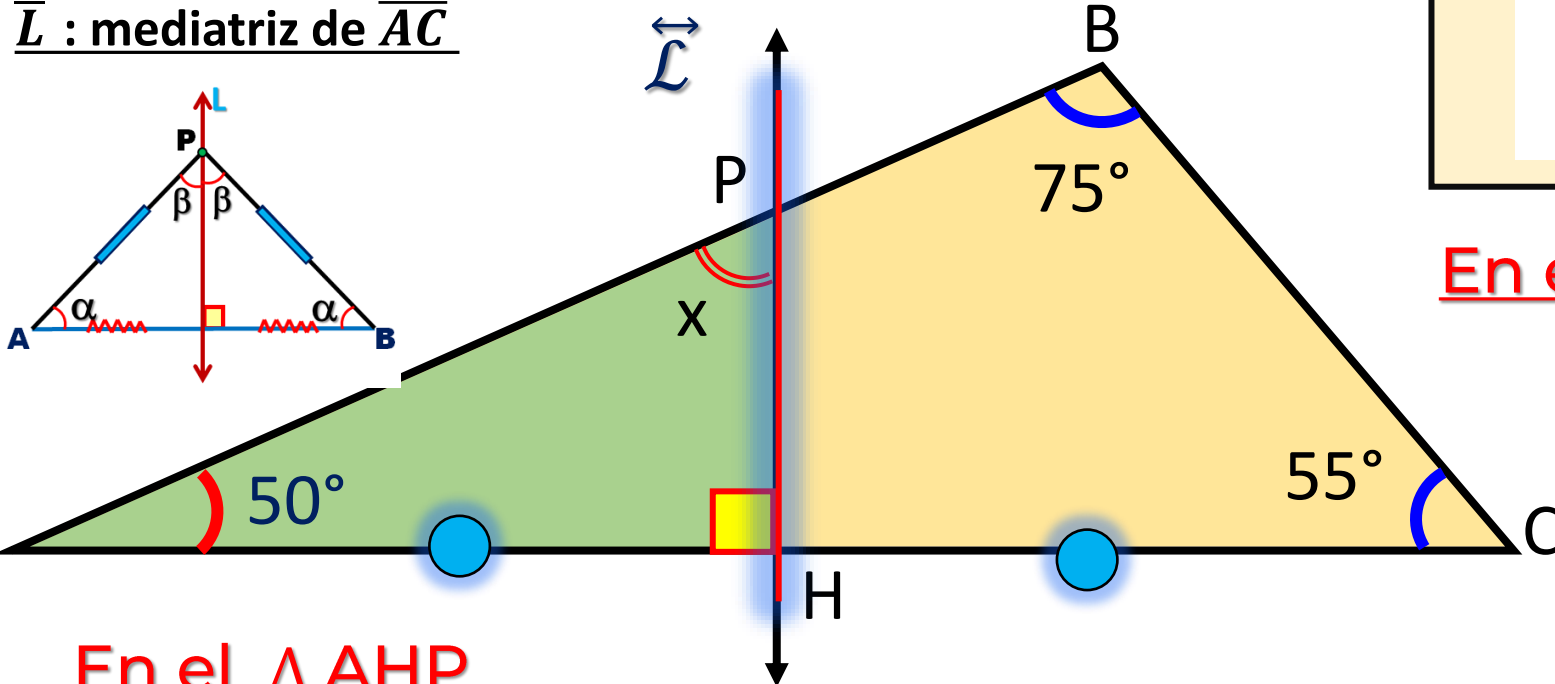
$$\mathbf{X = 8}$$



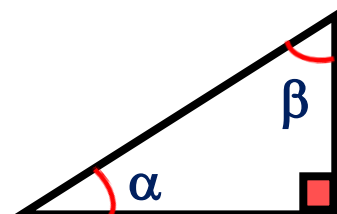


8. Si  $\vec{L}$  es la mediatriz relativa  $\overline{AC}$ .  
Hallar el valor de  $x$

$\vec{L}$  : mediatriz de  $\overline{AC}$



En el  $\Delta AHP$

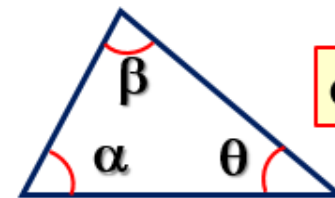


$$\alpha + \beta = 90^\circ$$

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

## RECORDEMOS

Suma de ángulos internos:



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

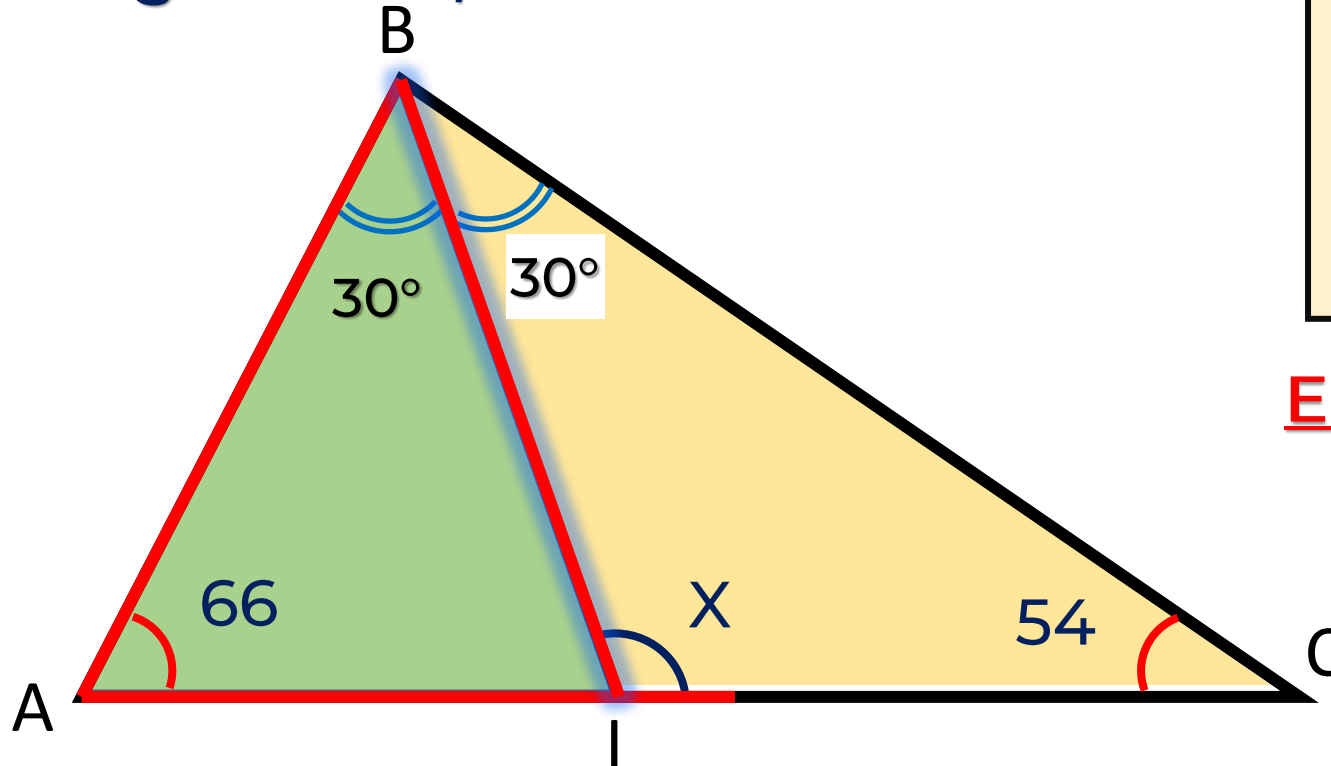
En el  $\Delta ABC$

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

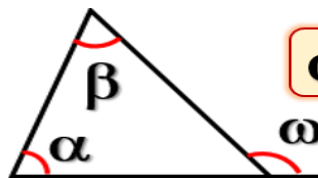
$$m\angle A = 50^\circ$$

$$\mathbf{x = 40^\circ}$$

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



En el  $\triangle ABI$



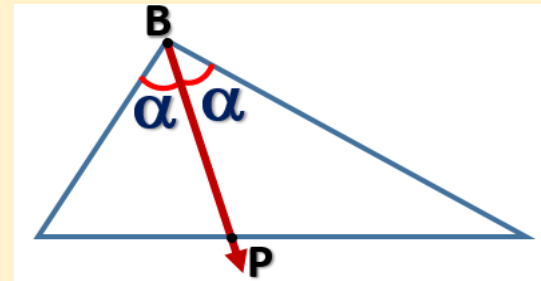
$$\omega = \alpha + \beta$$

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

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

## RECORDEMOS

$\overrightarrow{BP}$  : Bisectriz Interior



En el  $\triangle ABC$

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

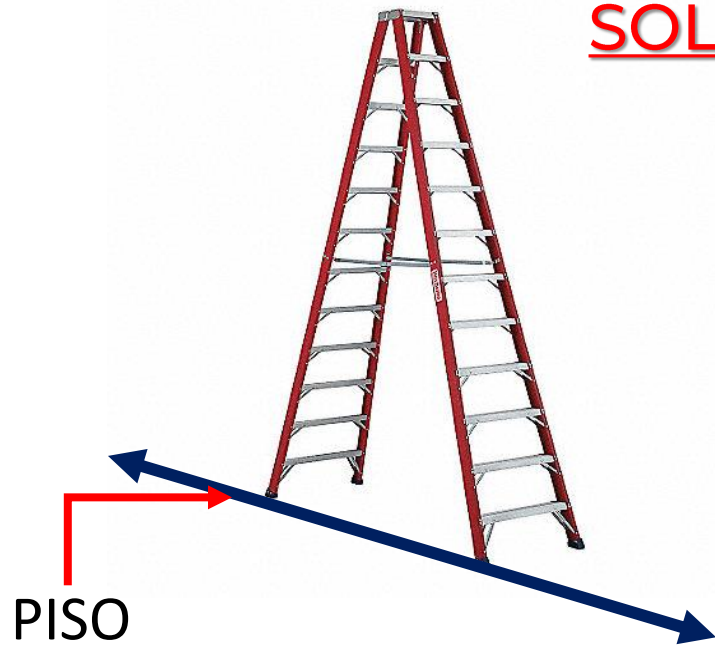
$$\alpha = 30^\circ$$

$$x = 96^\circ$$

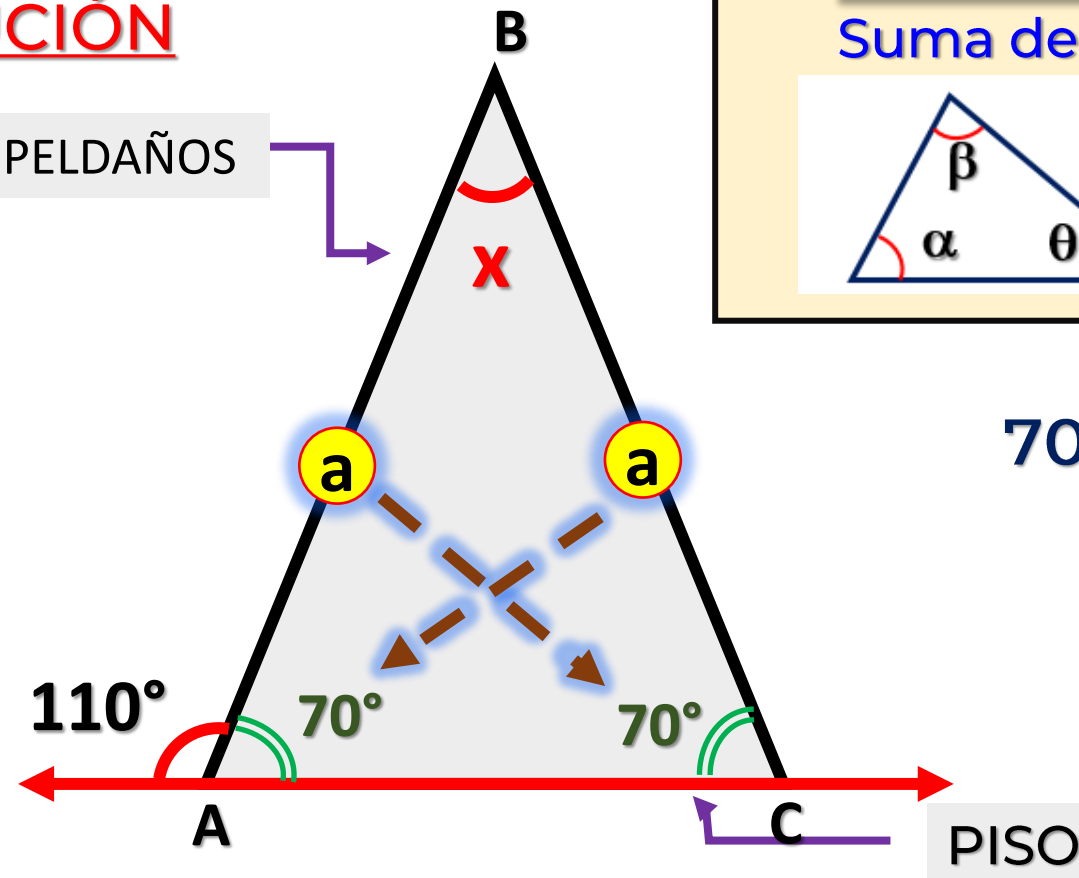


10. En la figura se muestra una escalera doble pie, si el ángulo exterior de la base mide  $110^\circ$ , halle el ángulo que mide en la parte superior entre ambos peldaños.

SOLUCIÓN

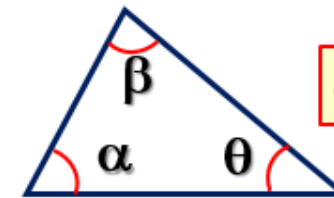


PELDAÑOS



**RECORDEMOS**

Suma de ángulos internos:



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

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

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

$$x = 40^\circ$$

