GEOMETRY

1st secondary

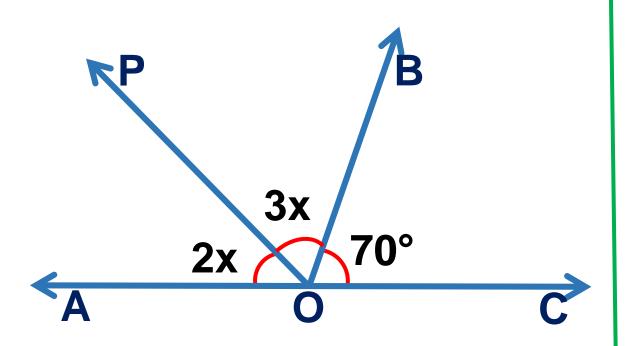


Práctica exploratoria





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



Resolución

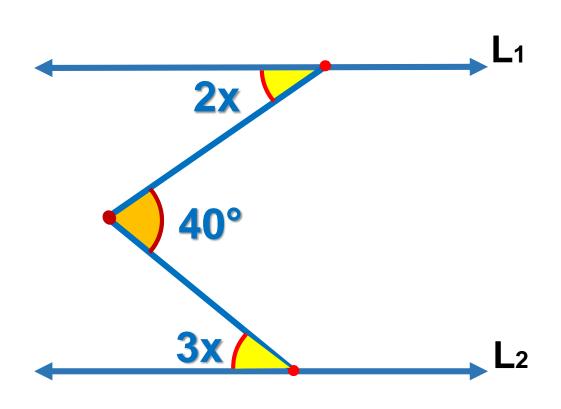
Por el postulado de la adición.

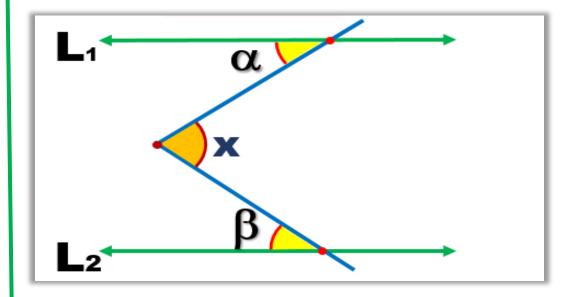
$$2x + 3x + 70^{\circ} = 180^{\circ}$$
 $5x + 70^{\circ} = 180^{\circ}$
 $5x = 180^{\circ} - 70^{\circ}$
 $5x = 110^{\circ}$

$$x = 22^{\circ}$$



2. Si $\overrightarrow{L_1}$ // $\overrightarrow{L_2}$, halle el valor de x.





$$40^{\circ} = 2x + 3x$$

$$40^{\circ} = 5x$$

$$8^{\circ} = x$$



3. Si el complemento de un ángulo es 38°, halle la medida de dicho ángulo.

- Medida del ángulo: α
- Piden: α

$$C_{\alpha} = 90^{\circ} - \alpha$$

$$C_{\alpha} = 38^{\circ}$$

$$90^{\circ} - \alpha = 38^{\circ}$$

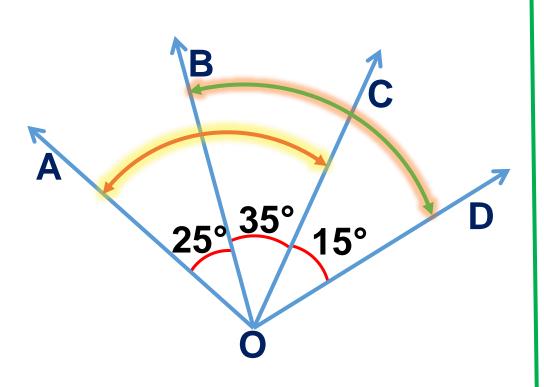
$$90^{\circ} = 38^{\circ} + \alpha$$

$$90^{\circ} - 38^{\circ} = \alpha$$

$$52^{\circ} = \alpha$$



4. En el gráfico, calcule m₄AOC + m₄BOD.



Resolución

Por el postulado de la adición

 $m \angle AOC = 25^{\circ} + 35^{\circ}$

m4AOC = 60°

 $m \angle BOD = 35^{\circ} + 15^{\circ}$

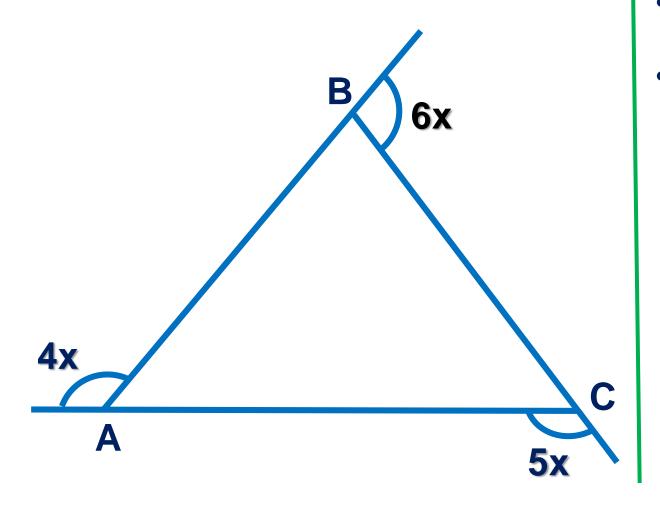
m≰**BOD** = 50°

Piden: m∢AOC + m∢BOD

$$m \angle AOC + m \angle BOD = 60^{\circ} + 50^{\circ}$$

 $m \angle AOC + m \angle BOD = 110^{\circ}$

5. Halle el valor de x.

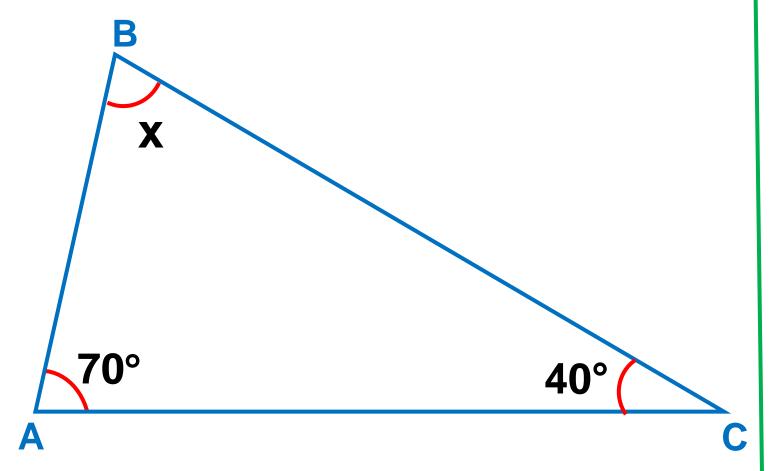


- Piden: x
- En todo triángulo la suma de las medidas de los ángulos externos tomados uno por vértice, es igual a 360°.

$$4x + 6x + 5x = 360^{\circ}$$

 $15x = 360^{\circ}$
 $x = 24^{\circ}$

6. Halle el valor de x.



- Piden: x
- En todo triángulo la suma de las medidas de los ángulos internos tomados uno por vértice, es igual a 180°.

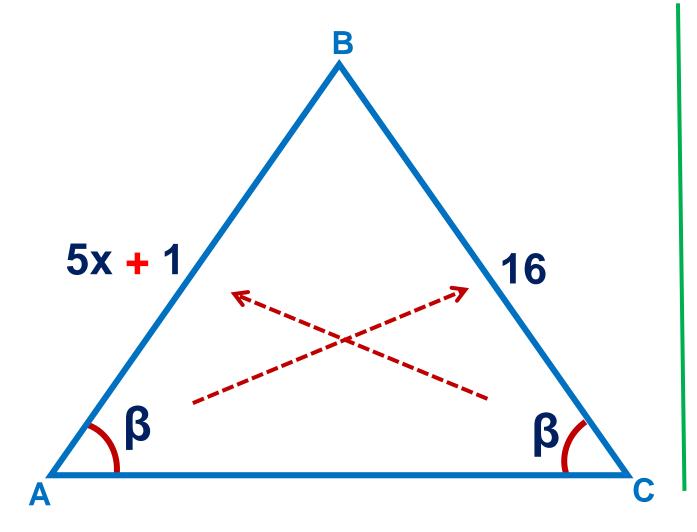
$$x + 70^{\circ} + 40^{\circ} = 180^{\circ}$$

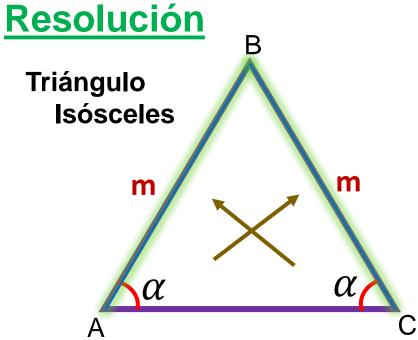
 $x + 110^{\circ} = 180^{\circ}$

$$x = 70^{\circ}$$



7. Halle el valor de x.





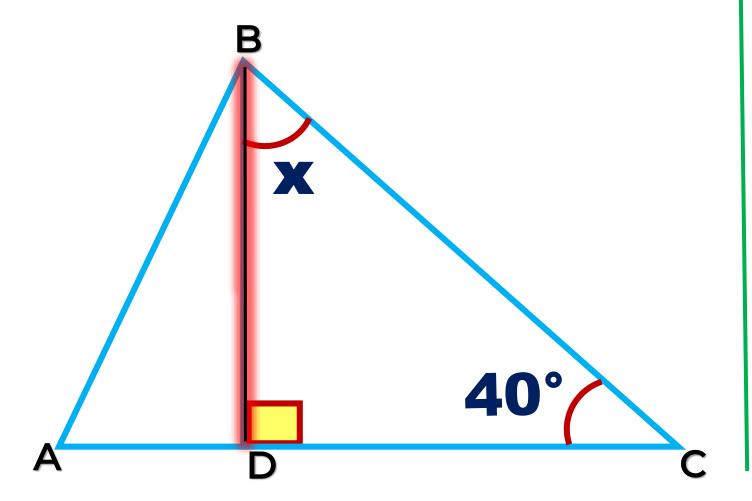
Piden: x

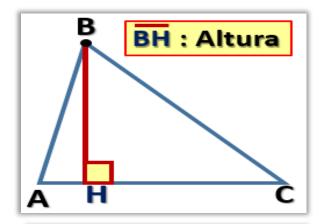
$$5x + 1 = 16$$

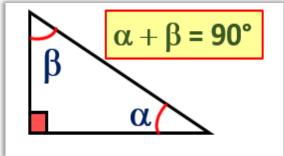
 $5x = 15$



8. Si BD es altura, halle el valor de x.







$$x + 40^{\circ} = 90^{\circ}$$

$$x = 50^{\circ}$$