

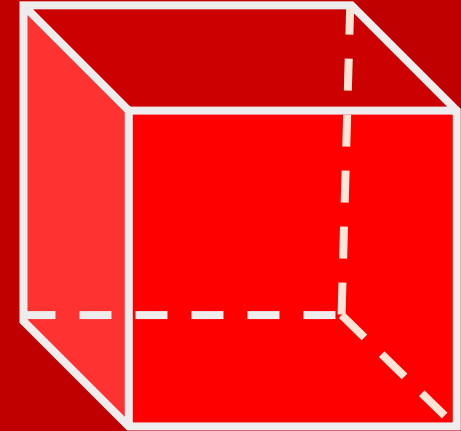


GEOMETRÍA

RETROALIMENTACIÓN TOMOV

1st

secondary

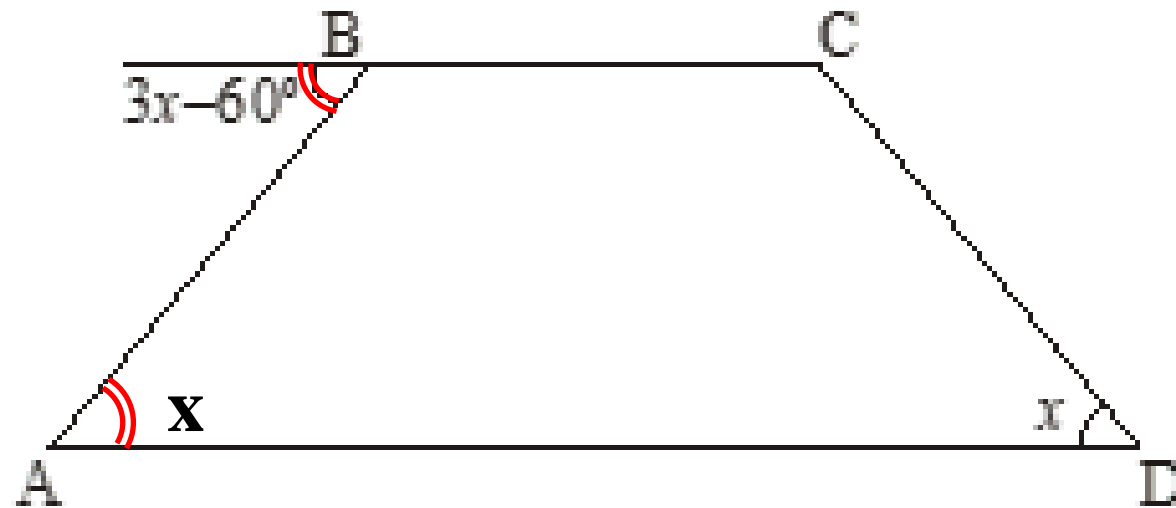
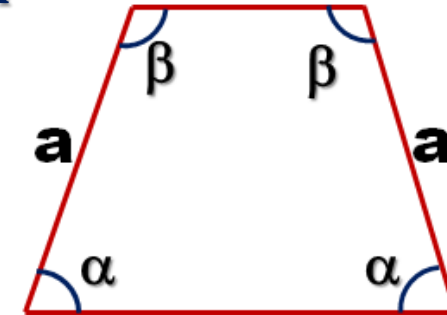


 **SACO OLIVEROS**



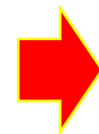
1. En el trapezio isósceles ABCD, calcular x , si: $\overline{BC} \parallel \overline{AD}$.

TRAPECIO ISÓSCELES



$$m \angle BAD = m \angle ADC$$

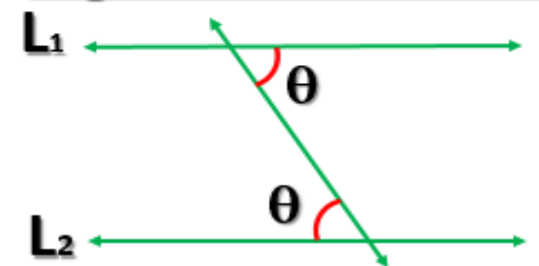
$$\bullet \overline{BC} \parallel \overline{AD}$$



$$3x - 60^\circ = x$$

$$2x = 60^\circ$$

Ángulos alternos internos



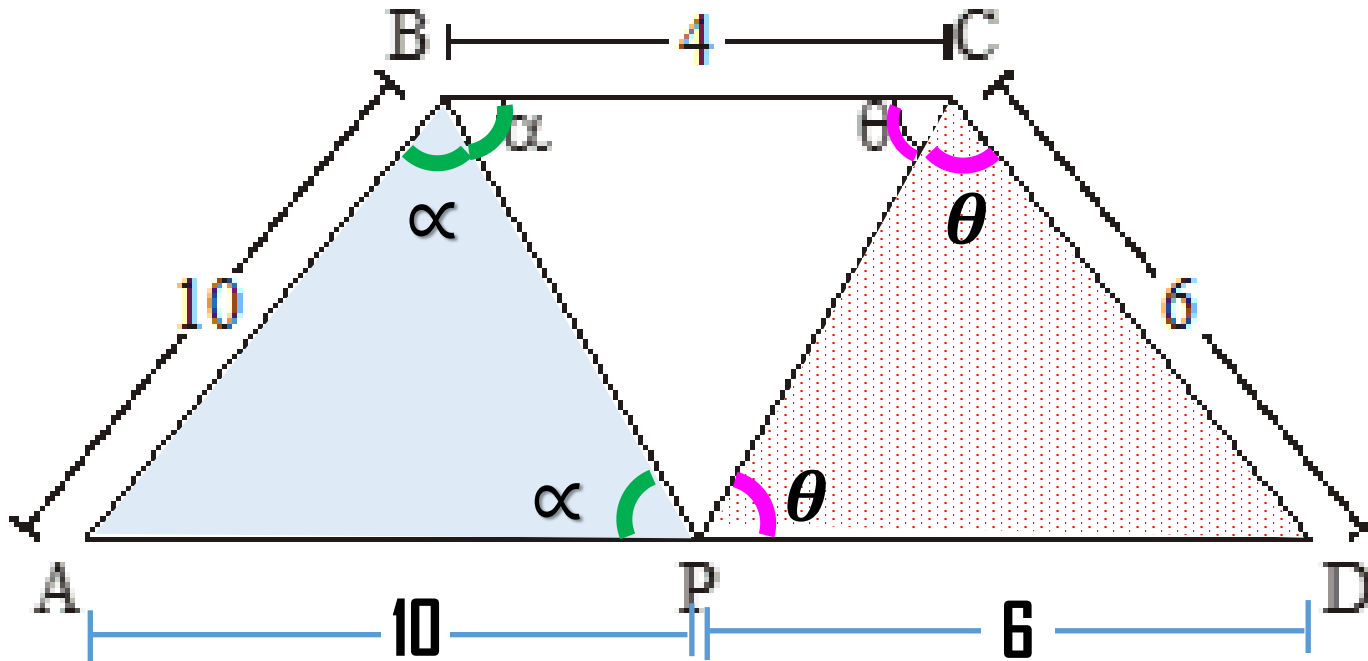
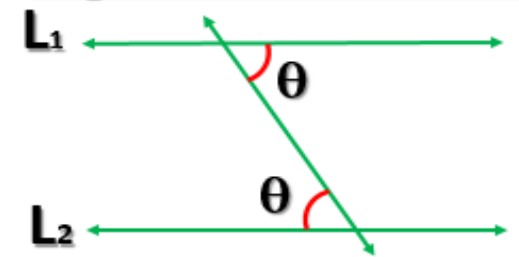
$$x = 30^\circ$$



2 En el gráfico, halle la longitud de AD. Si $\overline{BC} \parallel \overline{AD}$.

• $\overline{BC} \parallel \overline{AD}$

Ángulos alternos internos



- El ΔPCD (Isósceles)

$$CD = PD = 6$$

- El ΔABP (Isósceles)

$$AB = AP = 10$$

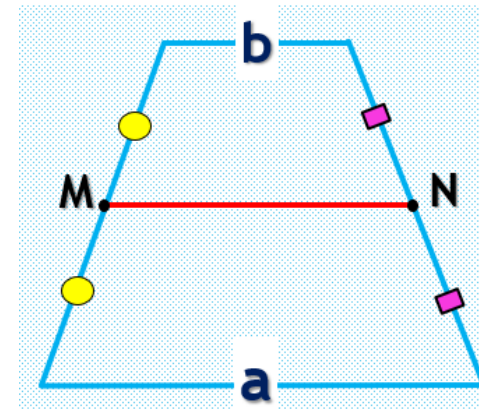
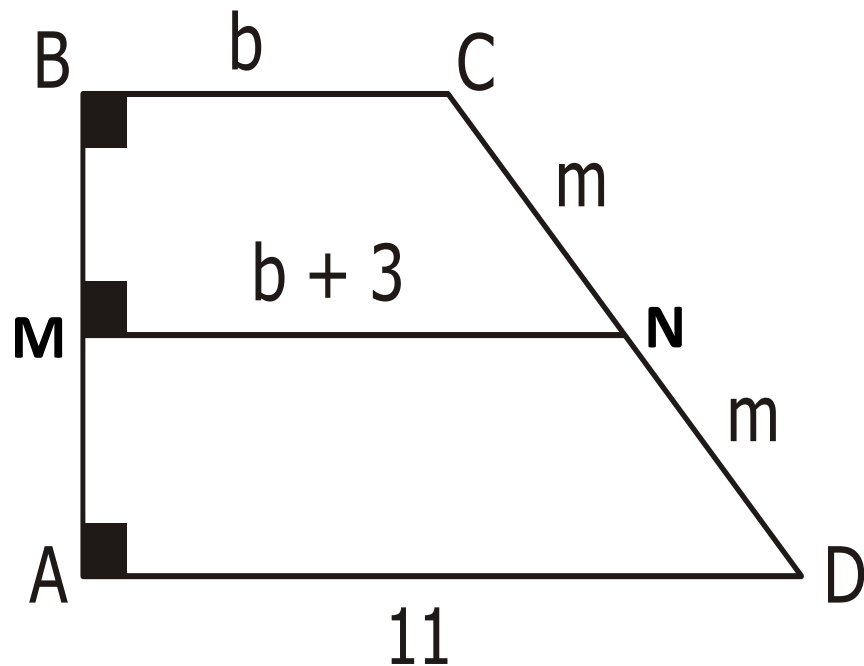


$$AD = 10 + 6$$

$$AD = 16$$

3. Hallar la longitud de la base media del trapezio

\overline{MN} BASE MEDIA DEL TRAPECIO



$$MN = \frac{a+b}{2}$$



$$b + 3 = \frac{b + 11}{2}$$

$$2b + 6 = b + 11$$

$$b = 5$$

$$MN = 5 + 3 = 8$$



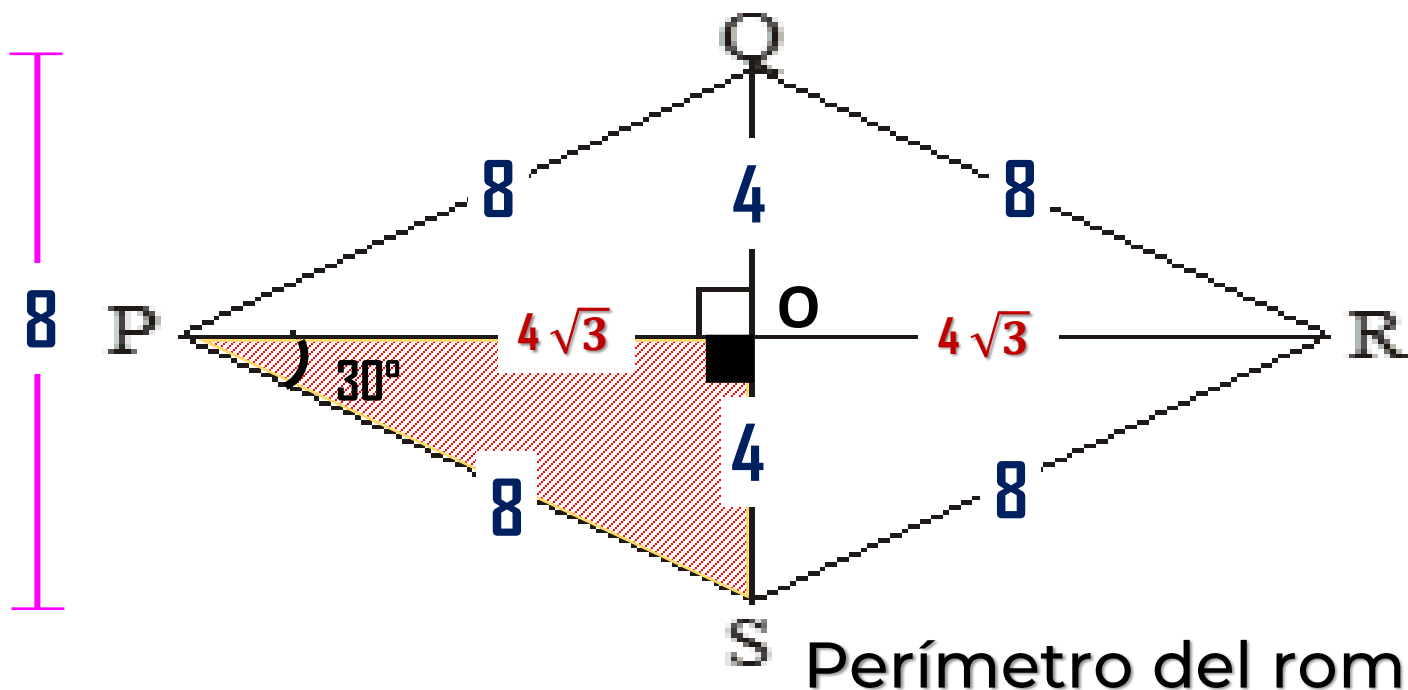
4. En el gráfico: PQRS es un rombo. Calcular su perímetro. Si: $QS = 8$.

En el rombo PQRS

Si: $QS = 8 \rightarrow QO = OS = 4$

En $\triangle POS$ (Notable 30° - 60°)

- $OP = OR = 4\sqrt{3}$
- $PS = 8$



Perímetro del rombo

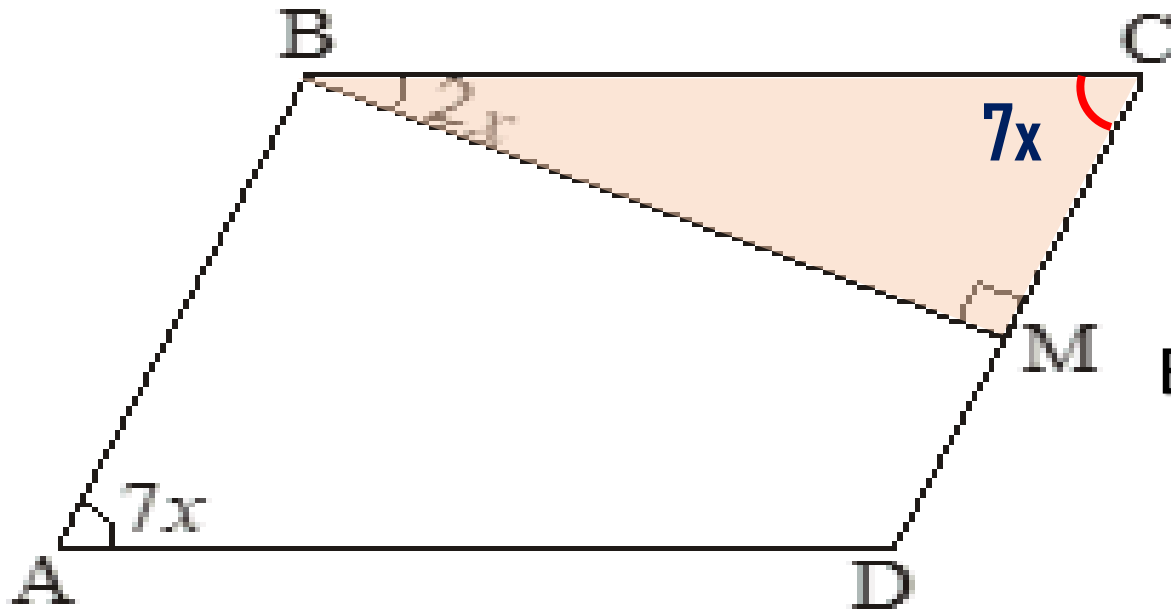
$$2 p_{\diamond} = 8 + 8 + 8 + 8$$

$$2 p_{\diamond} = 32$$



5. En la figura: ABCD es un romboide. Calcular x:

En el romboide
ABCD



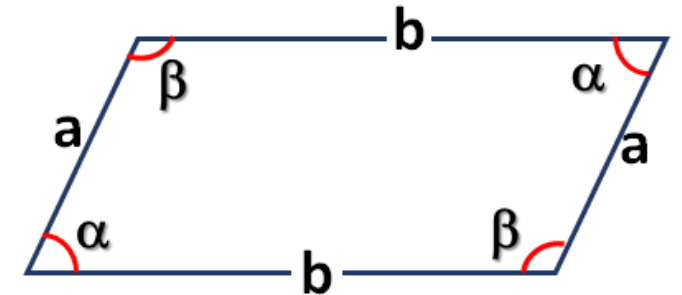
$$m \angle BAD = m \angle BCD = 7x$$

En el $\triangle BMC$

$$2x + 7x = 90^\circ$$

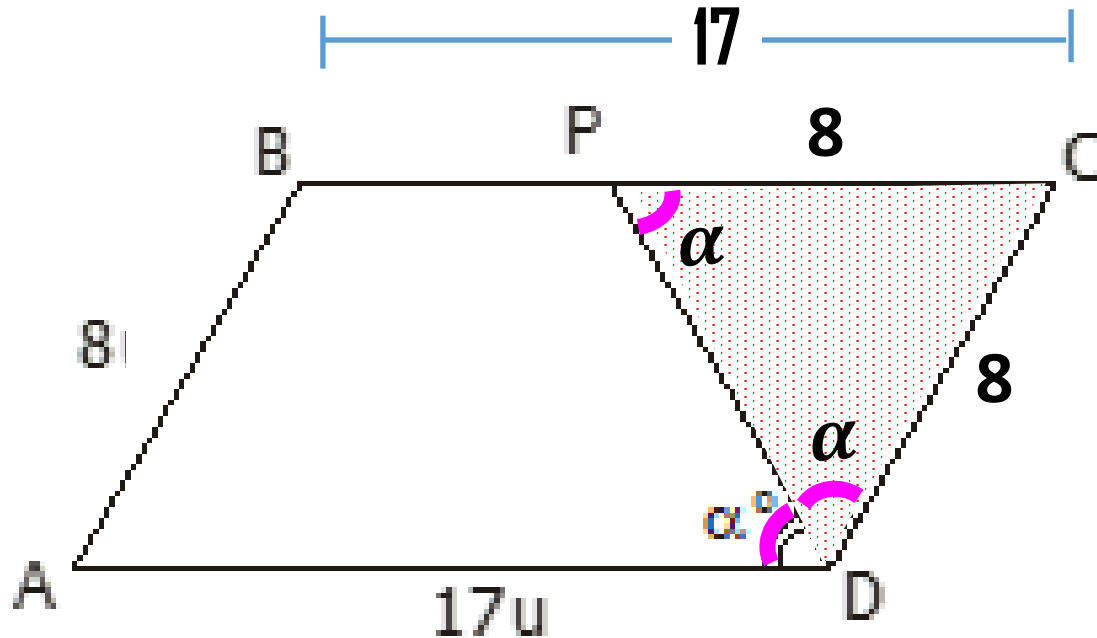
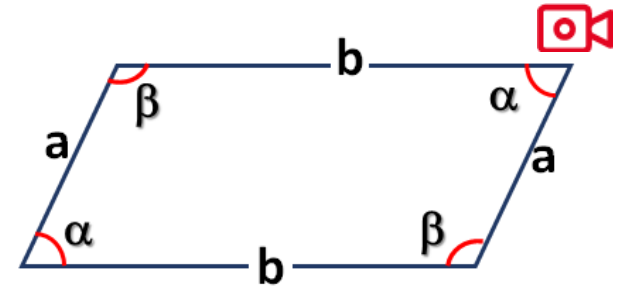
$$9x = 90^\circ$$

$$x = 10^\circ$$



6. Si ABCD es un romboide, calcular "BP".

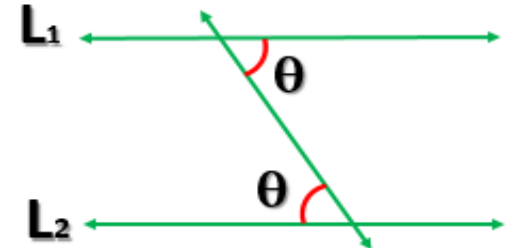
En el romboide ABCD



$$\bullet \quad AB = CD = 8 \quad \bullet \quad AD = BC = 17$$

$$\bullet \quad \overline{BC} \parallel \overline{AD}$$

Ángulos alternos internos



• El $\triangle PCD$ (Isósceles)

$$CD = PC = 8$$

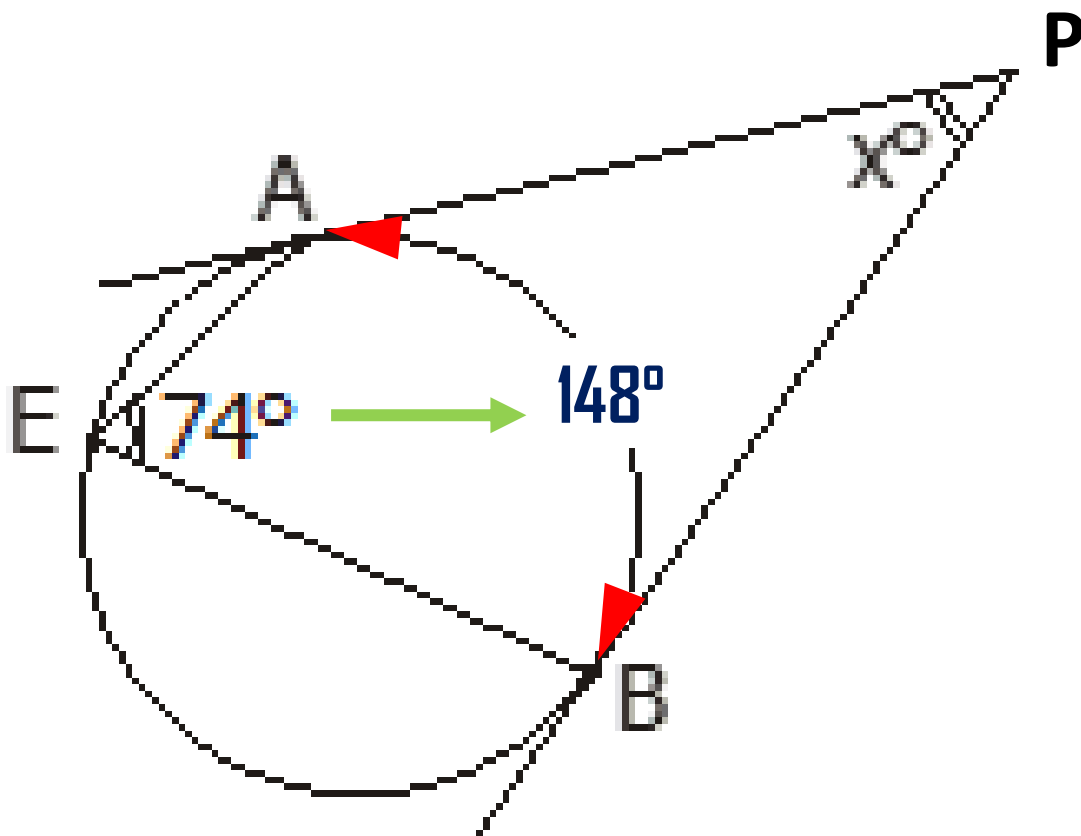


$$17 = BP + 8$$

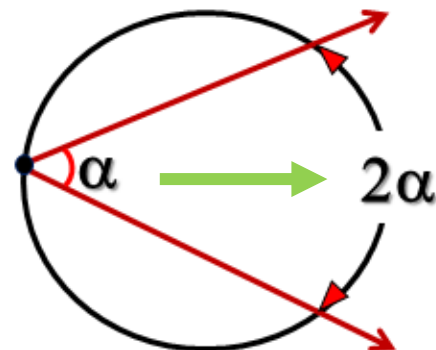
$$x = 11$$



7. En el grafico halle el valor de x

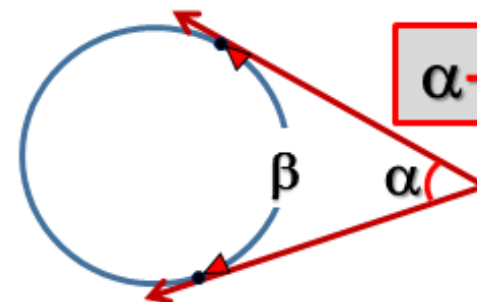


Ángulo inscrito



$$m \widehat{AB} = 148^\circ$$

TEOREMA



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

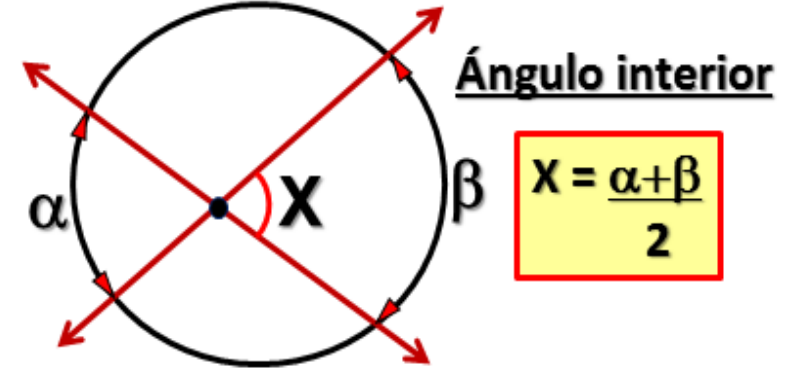
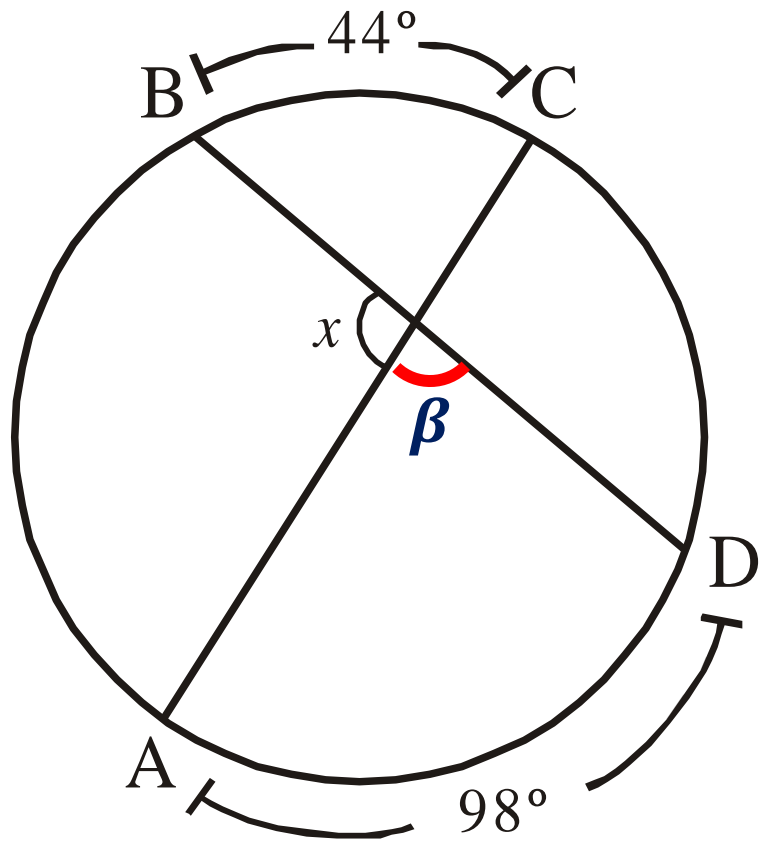


$$148^\circ + x = 180^\circ$$

$$x = 32^\circ$$



8. Del gráfico, halle el valor de x .



$$\beta = \frac{44^\circ + 98^\circ}{2}$$

$$\beta = 71^\circ$$

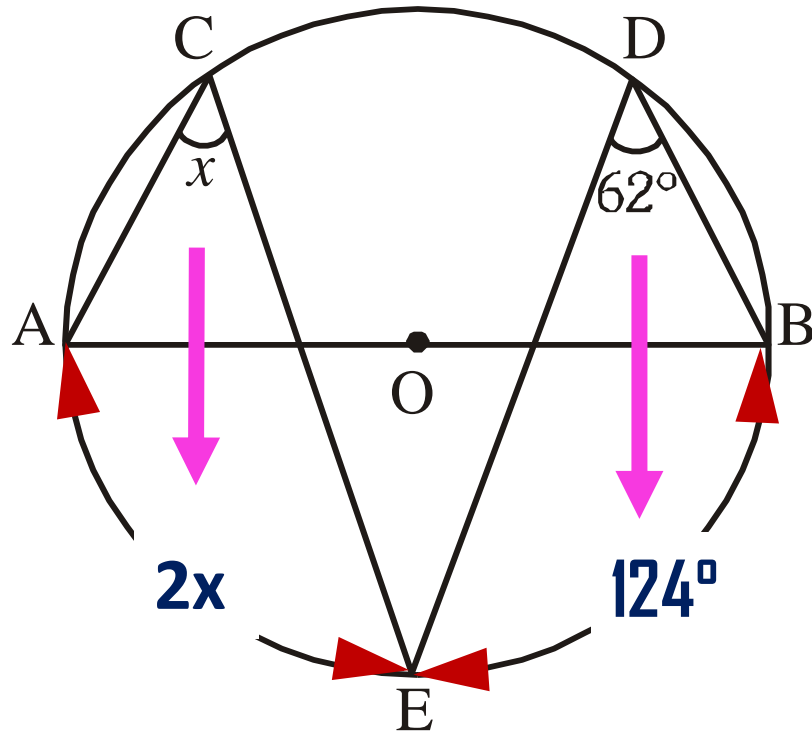
En \overline{BD}

$$x + 71^\circ = 180^\circ$$

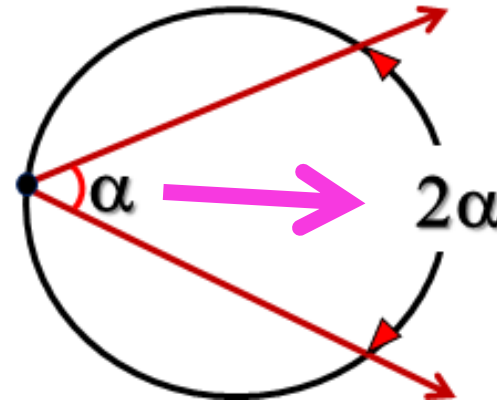
$$x = 109^\circ$$



9. En el gráfico, \overline{AB} es diámetro, halle el valor de x



Ángulo inscrito



$$m \widehat{AE} = 2x$$

$$m \widehat{EB} = 124^\circ$$

\overline{AB} ES DIÁMETRO

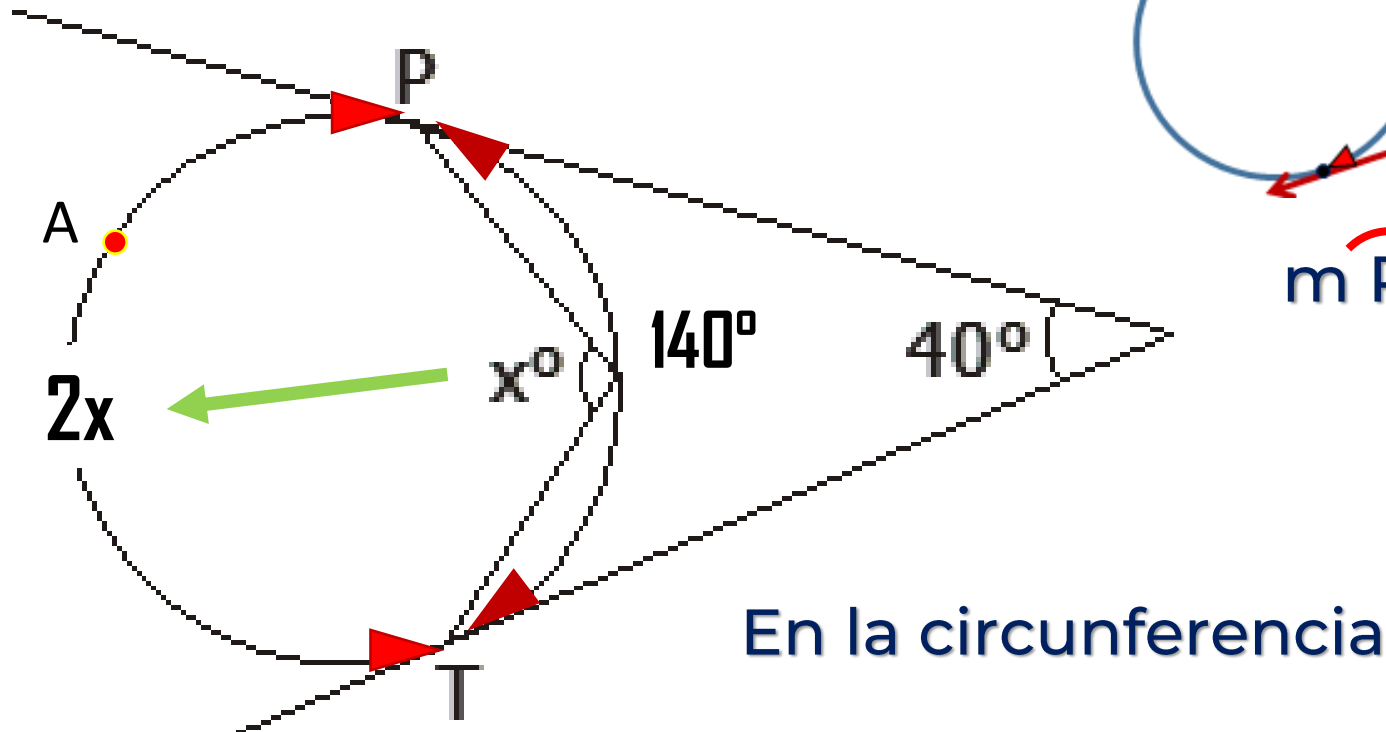
$$2x + 124^\circ = 180^\circ$$

$$2x = 56^\circ$$

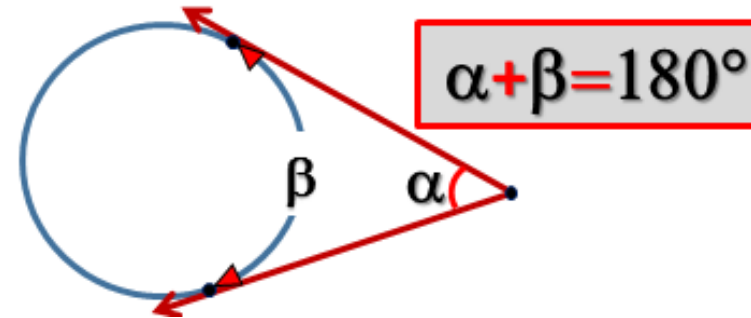
$$x = 28^\circ$$



10. Calcular "x". ("P" y "T" son puntos de tangencia)



TEOREMA

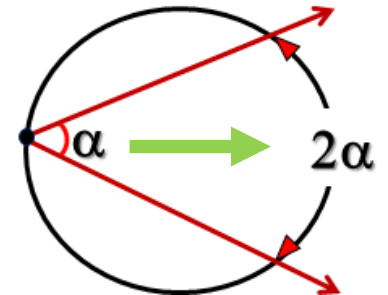


$$m \widehat{PT} + 40^\circ = 180^\circ$$

$$m \widehat{PT} = 140^\circ$$

TEOREMA

Ángulo inscrito



$$m \widehat{PAT} = 2x$$

$$2x + 140^\circ = 360^\circ$$

$$2x = 220^\circ$$

$$x = 110^\circ$$