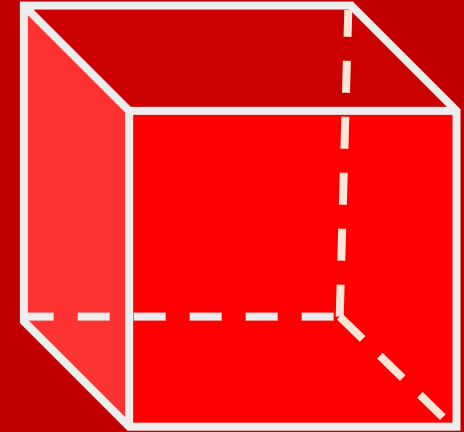




# **GEOMETRÍA**

**1rd  
secondary**

**RETROALIMENTACIÓN  
TOMOV**



 **SACO OLIVEROS**

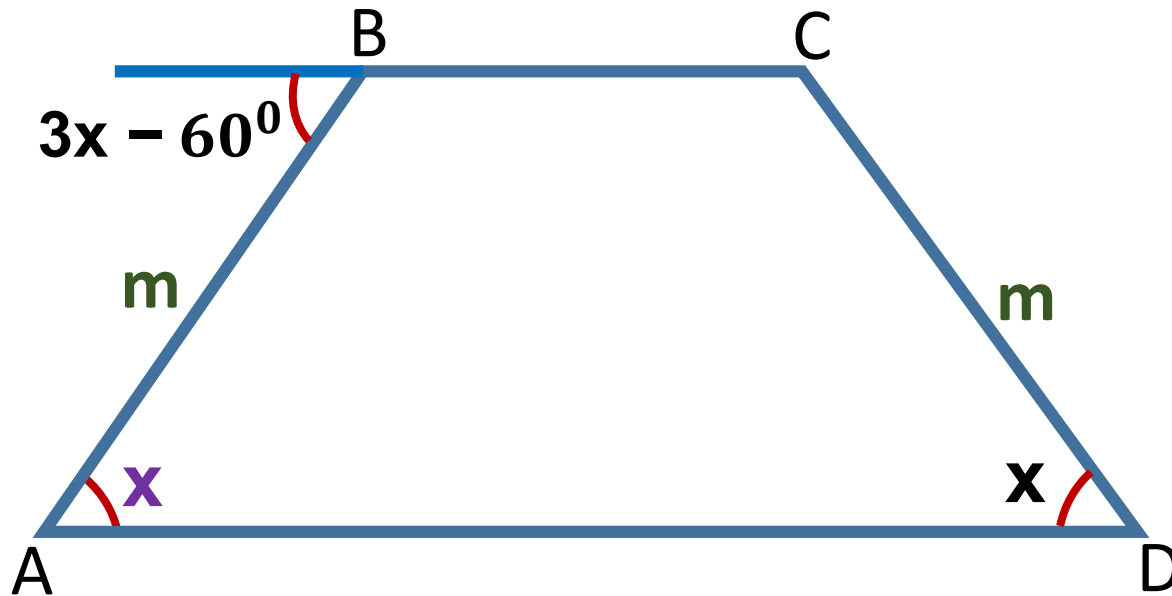
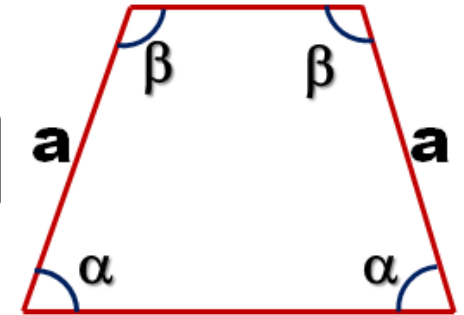


1. En el trapecio isósceles  $ABCD$ ,  $\overline{BC} \parallel \overline{AD}$ . Halle el valor de  $x$ .

Resolución:

Piden:  $x$

TRAPECIO ISÓSCELES



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

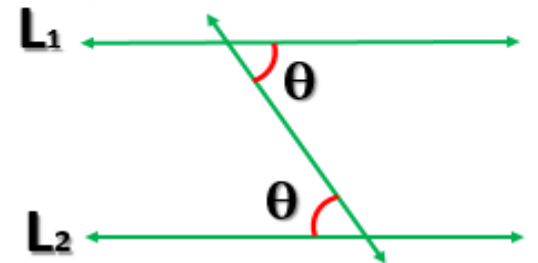
$$3x - 60^\circ = x$$

$$2x = 60^\circ$$

$$x = 30^\circ$$

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

Ángulos alternos internos





2. En el gráfico,  $\overline{BC} \parallel \overline{AD}$ . Calcule AD.

Resolución:

Piden: AD

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

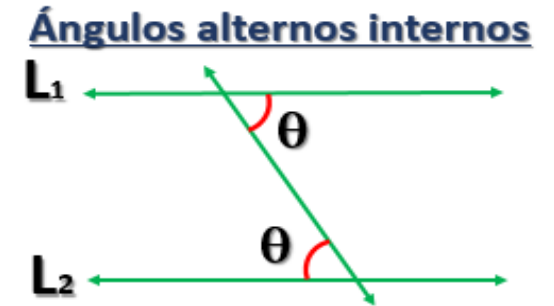
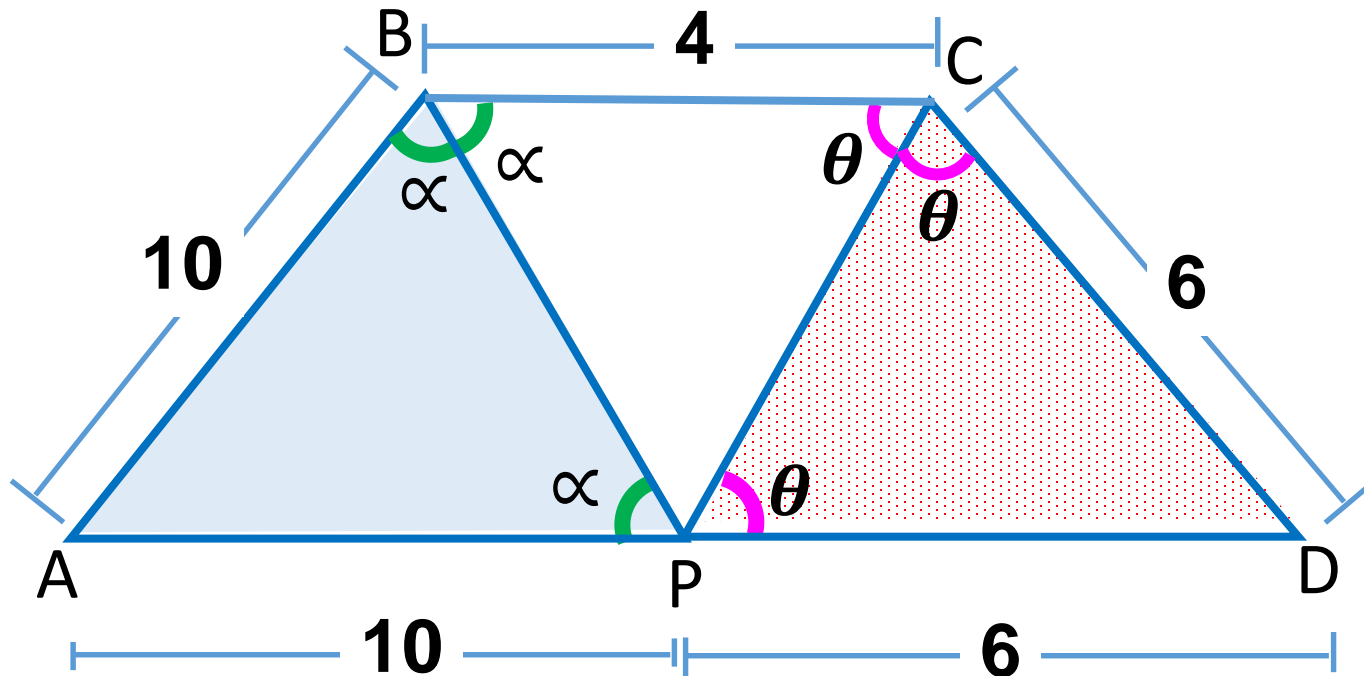
- El  $\triangle BAP$  (Isósceles)

$$AB = AP = 10$$

- El  $\triangle CPD$  (Isósceles)

$$CD = PD = 6$$

$$AD = 16$$

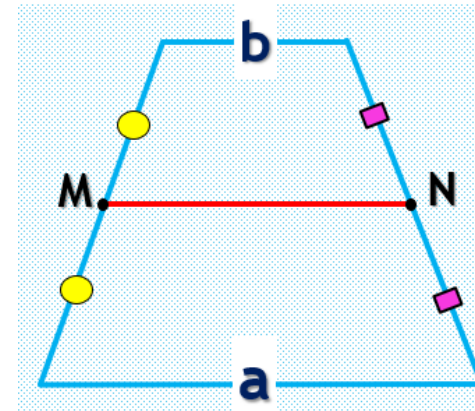
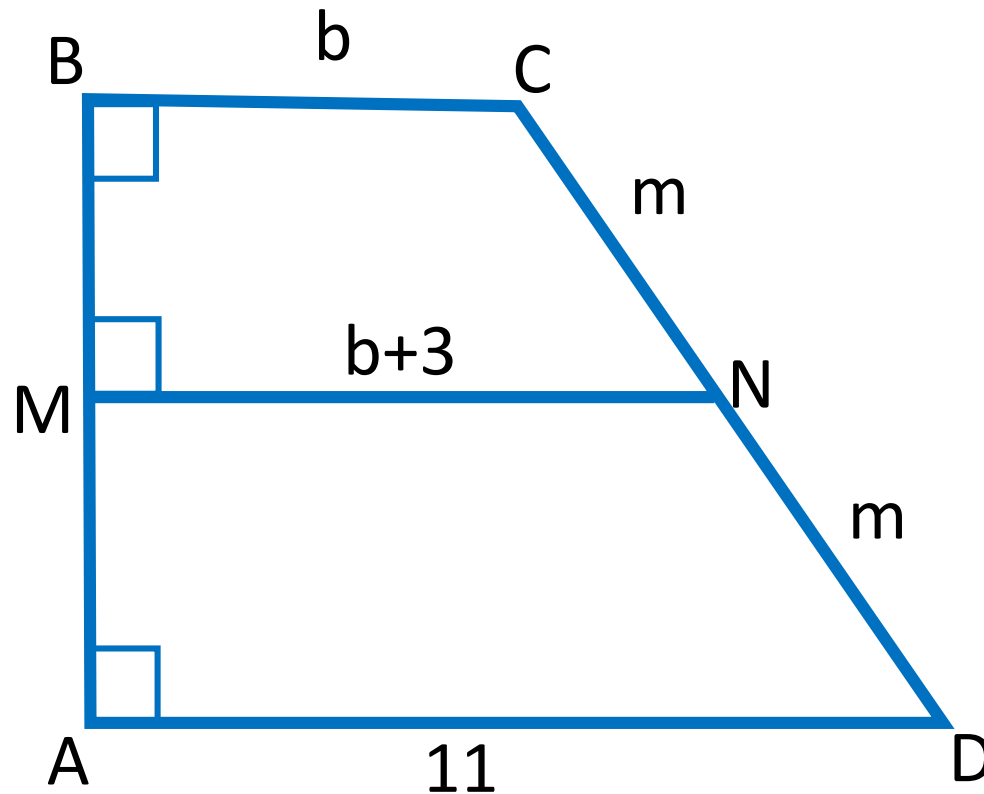




### 3. Hallar la longitud de la base media del trapecio

Resolución:

Piden: MN



$\overline{MN}$  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 la figura,  $QS = 8$ . Calcular el perímetro del rombo ABCD.

Resolución:

Piden:  $2p$

En el rombo PQRS

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

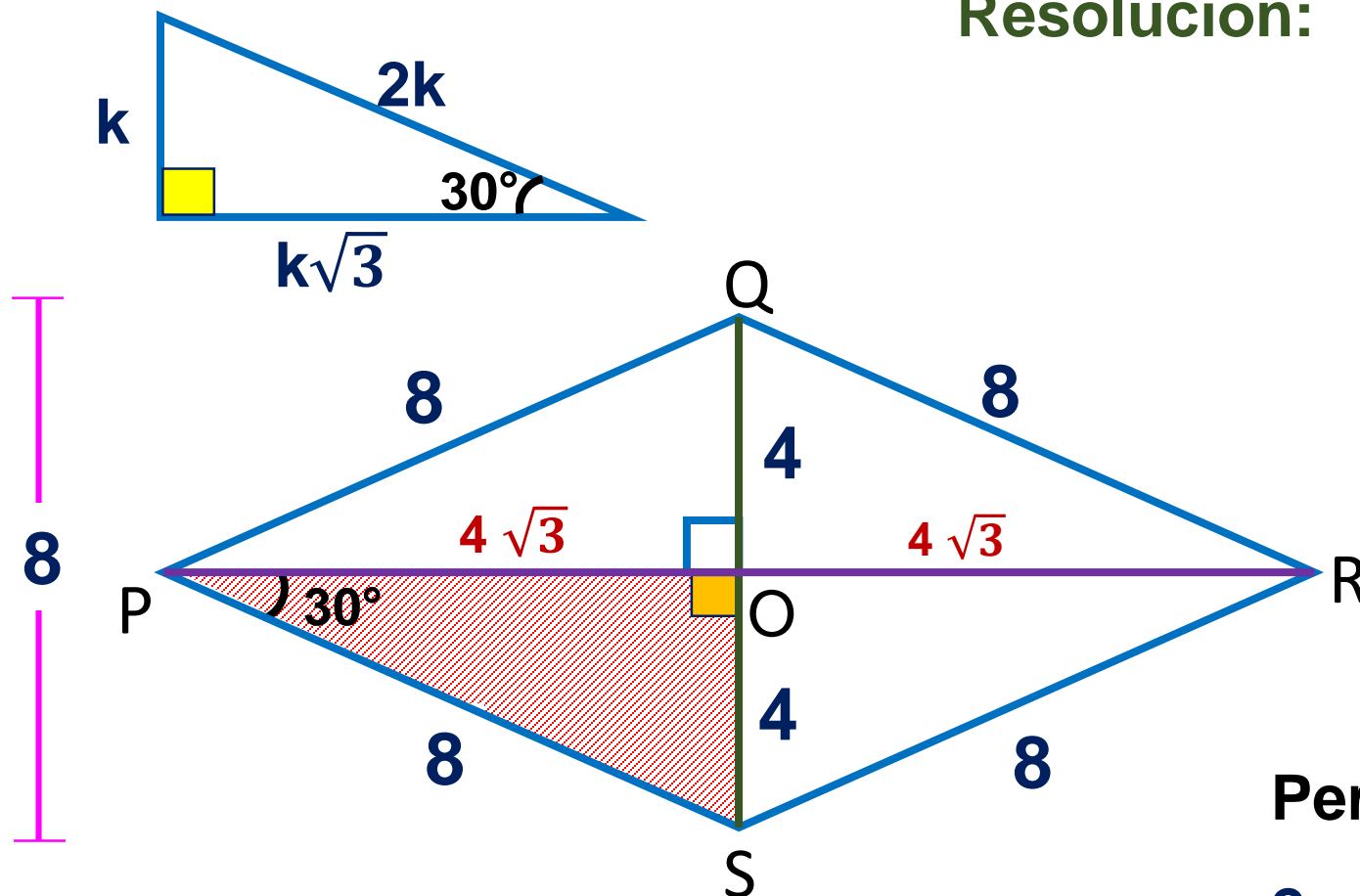
En  $\triangle POS$  (Notable  $30^\circ - 60^\circ$ )

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

Perímetro del rombo

$$2p \diamond = 8 + 8 + 8 + 8$$

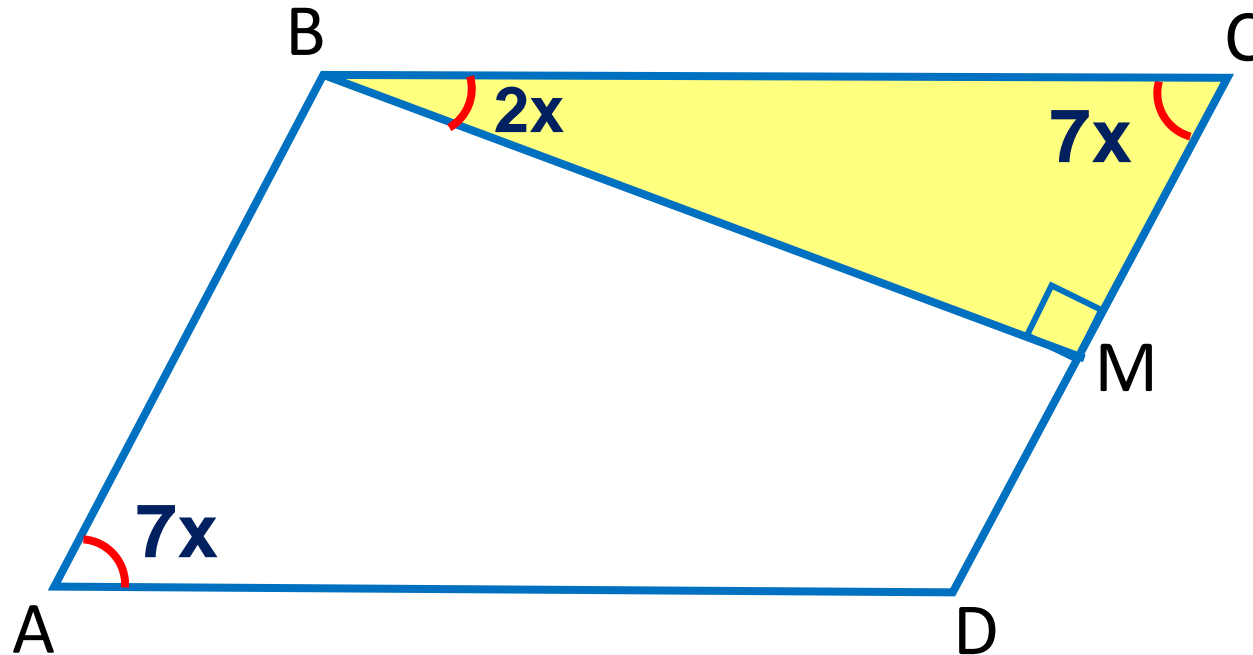
$$2p \diamond = 32$$





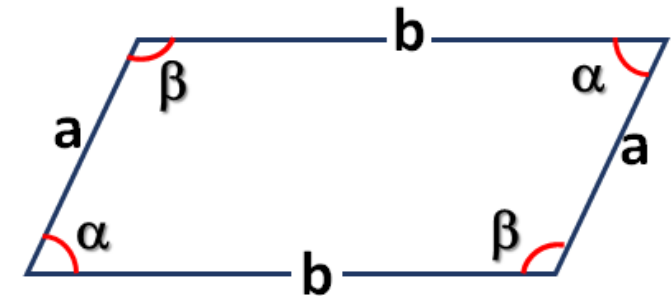
5. En la figura, ABCD es un romboide. Calcular x.

Resolución:



Piden: x

En el romboide ABCD



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

En el  $\triangle BMC$

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

$$9x = 90^\circ$$

$$x = 10^\circ$$

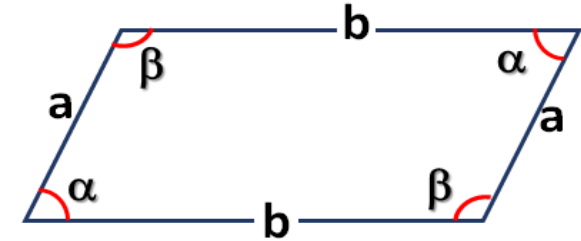


6. En la figura, ABCD es un romboide. Calcule BP.

Resolución:

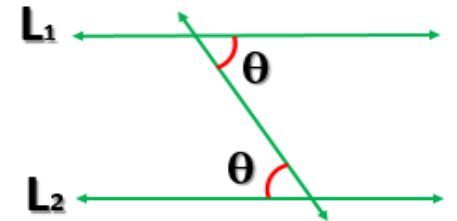
Piden:  $BP = x$

En el romboide ABCD



- $AB = CD = 8$        $AD = BC = 17$

Ángulos alternos internos



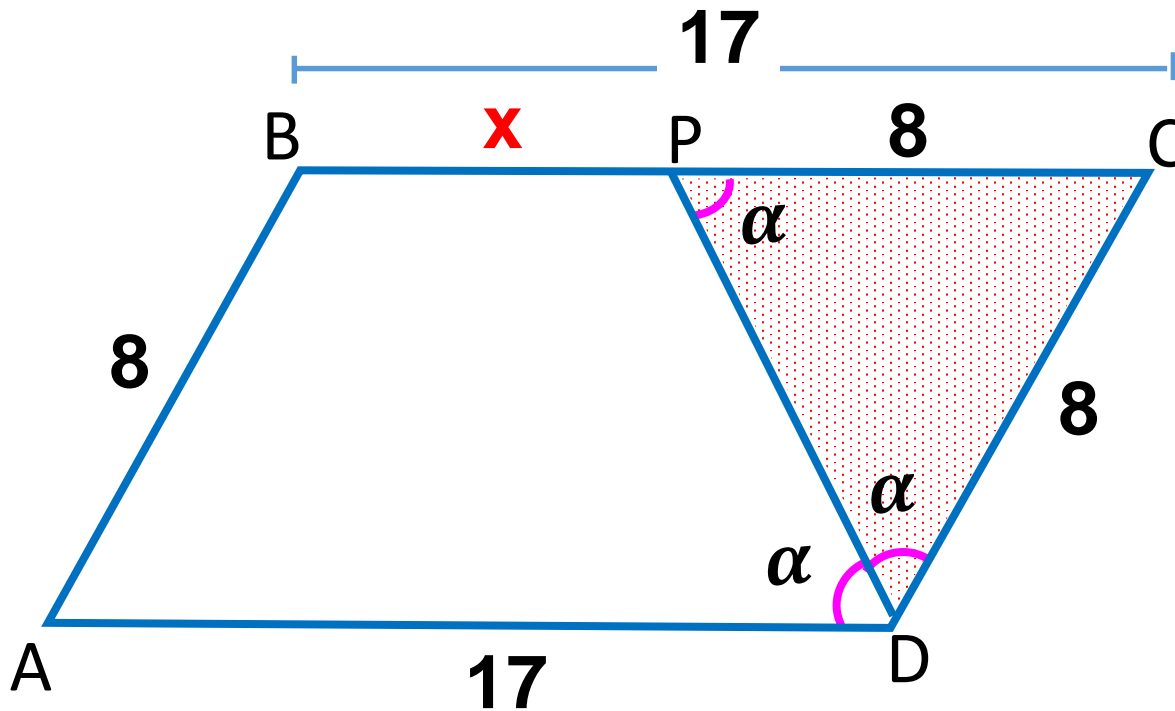
$\overline{BC} \parallel \overline{AD}$

- El  $\triangle PCD$  (Isósceles)

$$CD = PC = 8$$

$$\Rightarrow 17 = 8 + x$$

$$x = 9$$



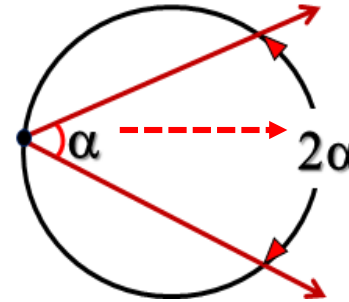


7. En la figura, halle el valor de x

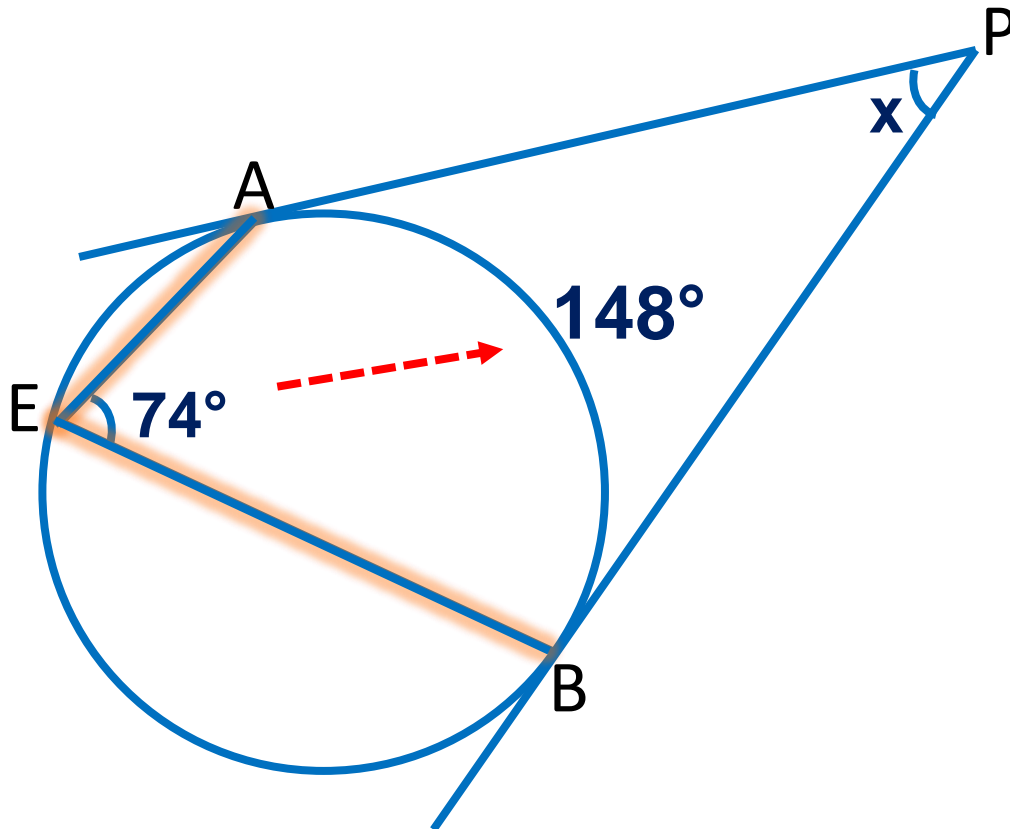
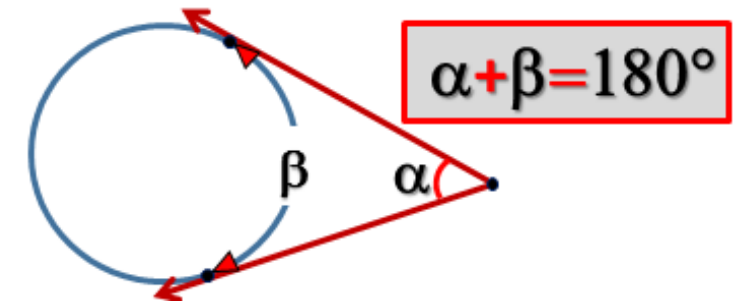
Resolución:

Piden: x

Ángulo inscrito



TEOREMA



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

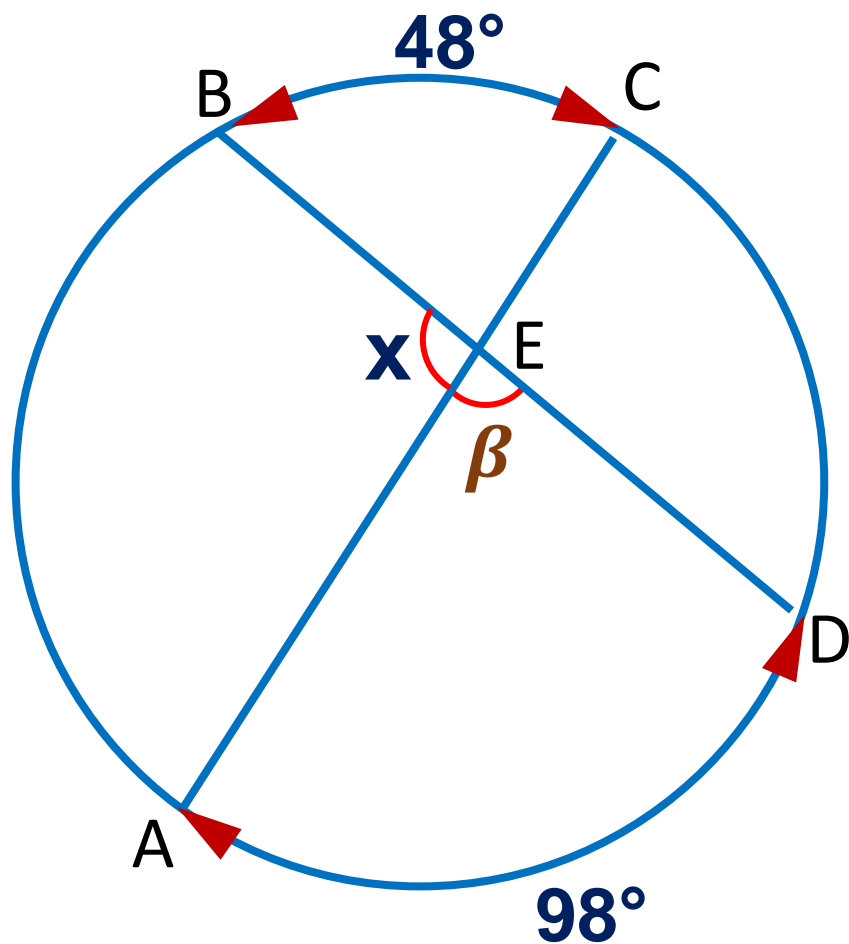
$$x = 180^\circ - 148^\circ$$

$$x = 32^\circ$$

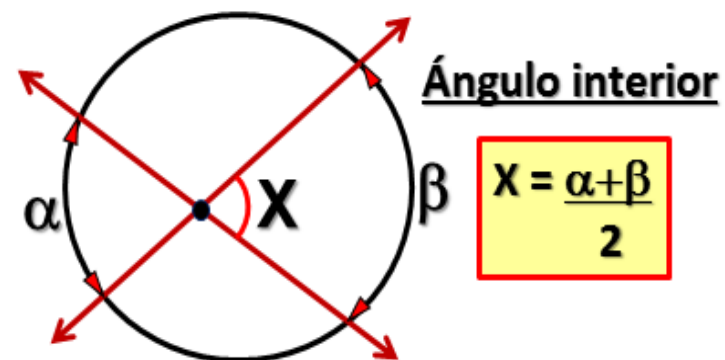




8. En la figura, halle el valor de  $x$ .



Resolución: Piden:  $x$



$$\beta = \frac{44^\circ + 98^\circ}{2} \rightarrow \beta = 71^\circ$$

En  $\overline{BD}$

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

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

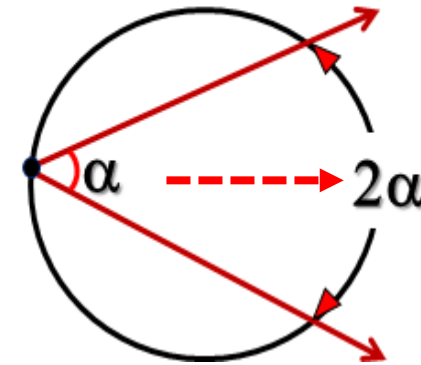
$$x = 109^\circ$$

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

Resolución:

Piden:  $x$

Ángulo inscrito



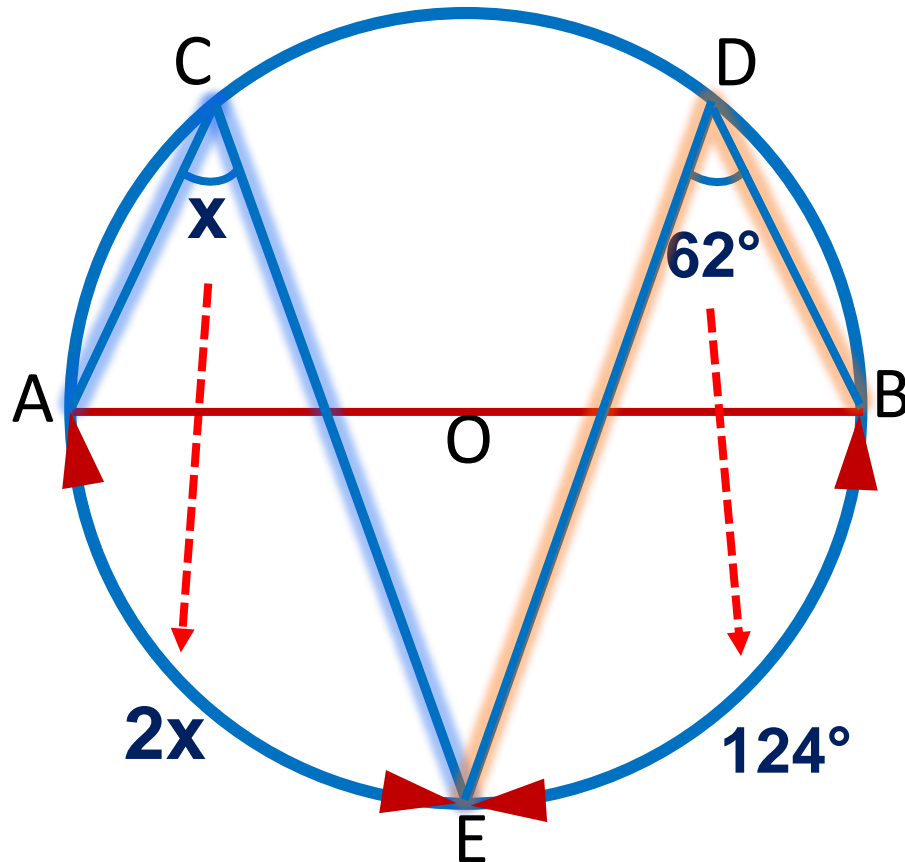
$\overline{AB}$  ES DIÁMETRO



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

$$2x = 56^\circ$$

$$x = 28^\circ$$



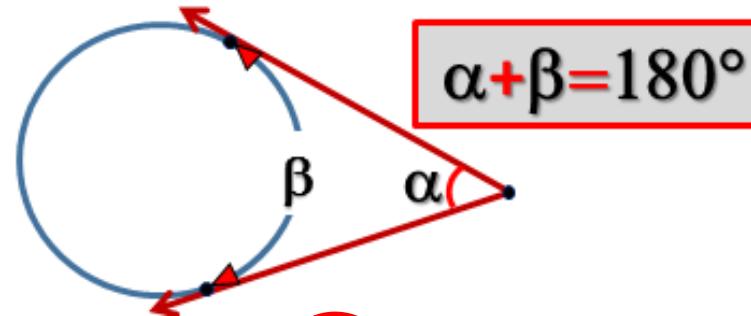
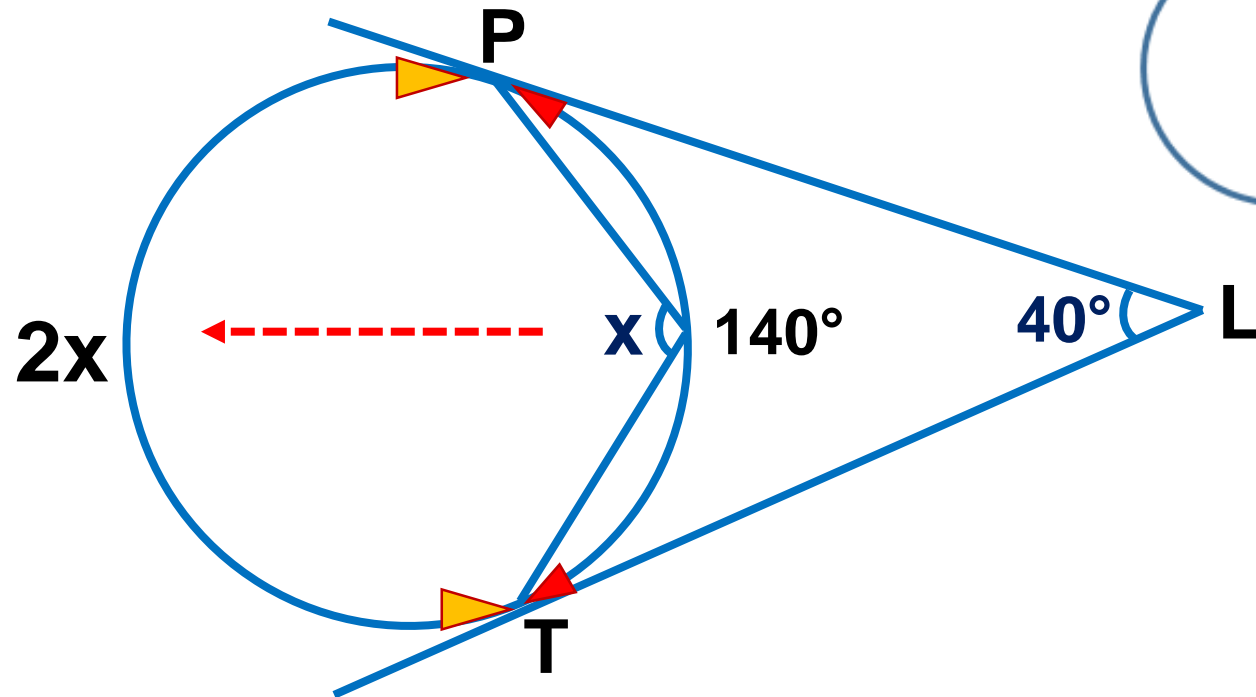


10. En la figura, P y T son puntos de tangencia. Halle el valor de x.

Resolución:

Piden: x

TEOREMA



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

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

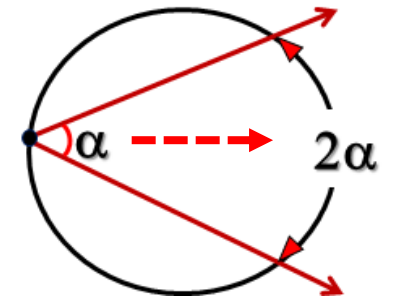
En la circunferencia

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

$$2x = 220^\circ$$

TEOREMA

Ángulo inscrito



$$x = 110^\circ$$