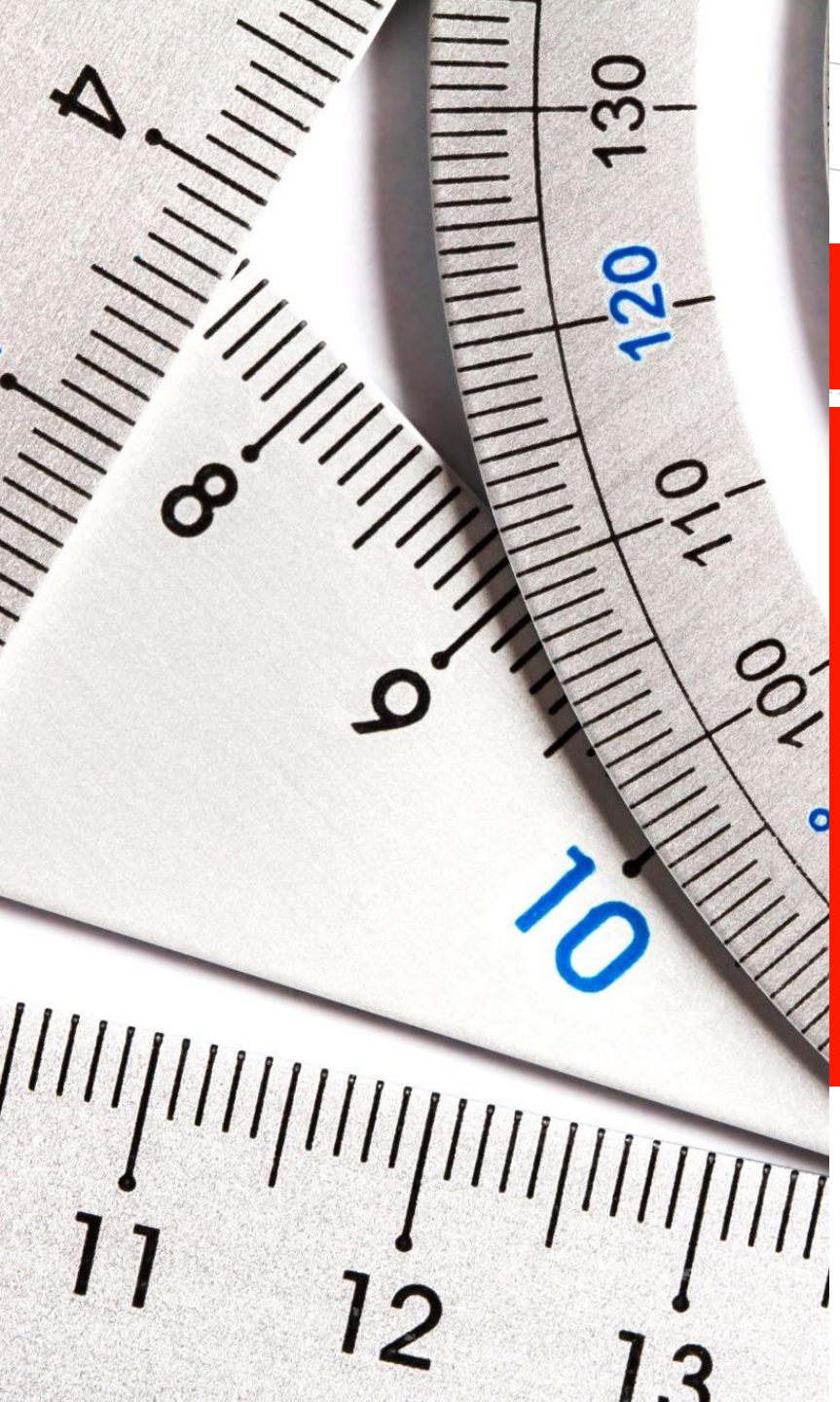
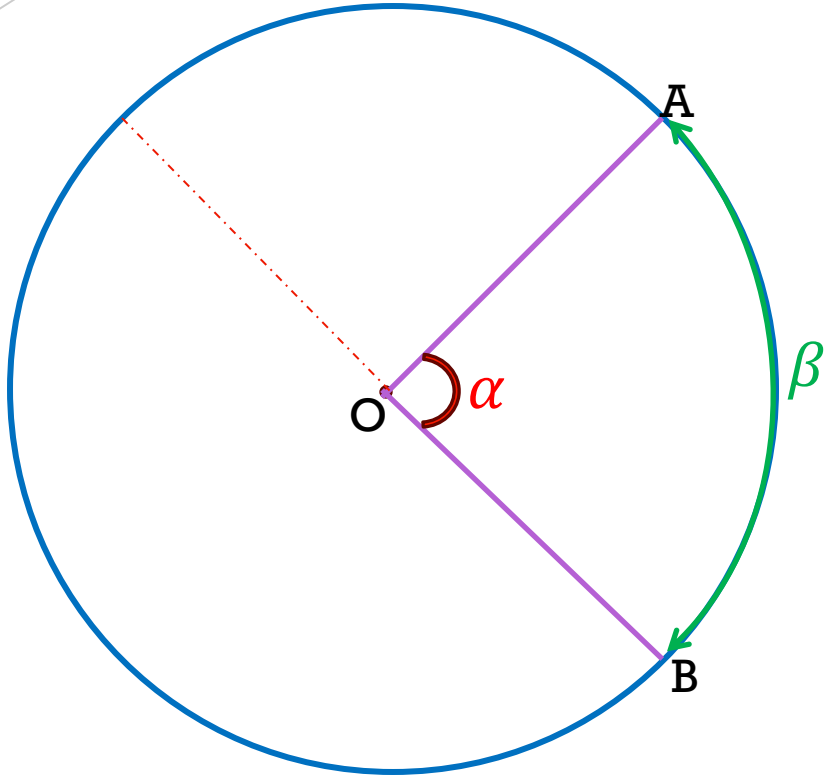


ÁNGULOS EN UNA CIRCUNFERENCIA

GEOMETRÍA BÁSICA

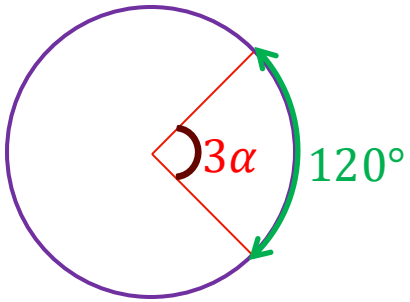
ÁNGULO CENTRAL



$\alpha = \beta$

O: $Centro\ de\ la\ circunferecnia$

Ejemplo: Calcula α, si O es centro.

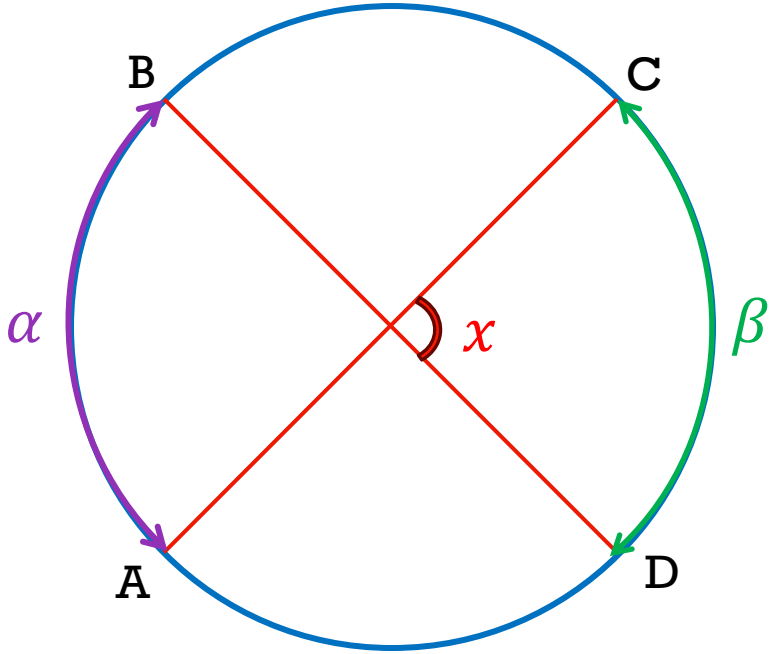


$\Rightarrow 3\alpha = 120°$

$$\alpha = \frac{120°}{3}$$

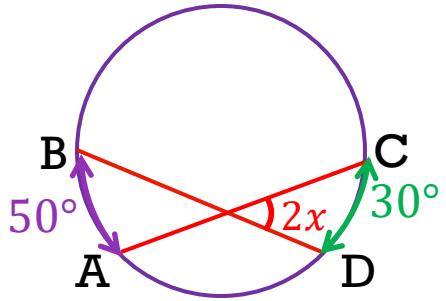
$\alpha = 40°$

ÁNGULO INTERIOR



$$x = \frac{\alpha + \beta}{2}$$

Ejemplo: Calcula el valor de x.

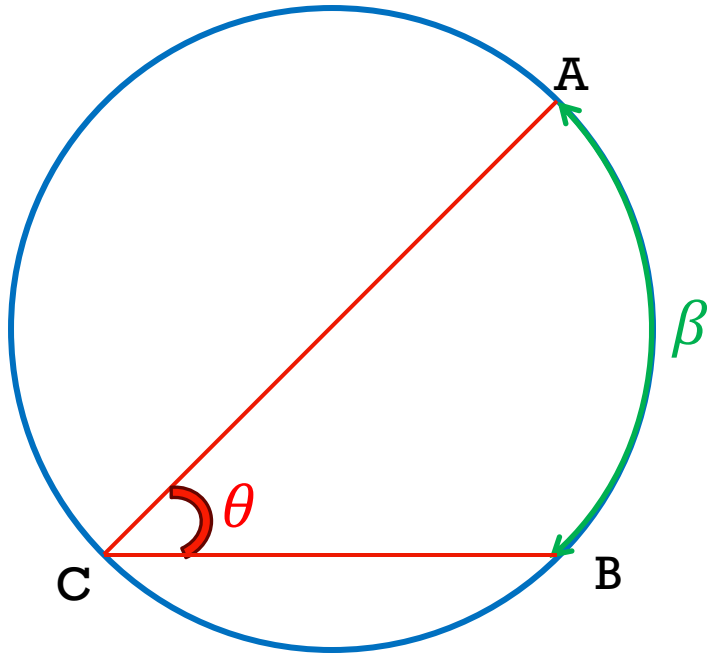


$$\Rightarrow 2x = \frac{50° + 30°}{2}$$

$$2x = 40°$$

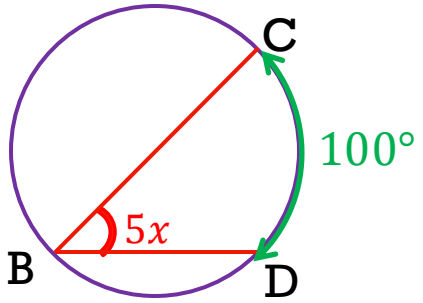
$$x = 20°$$

ÁNGULO INSCRITO



$$\theta = \frac{\beta}{2}$$

Ejemplo: Calcula el valor de x.

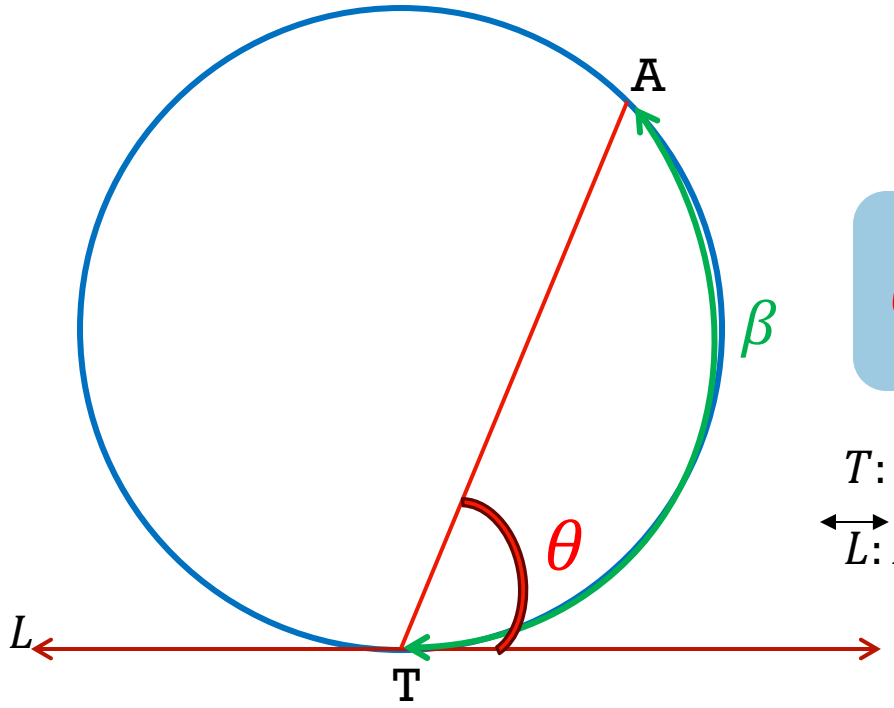


$$\Rightarrow 5x = \frac{100°}{2}$$

$$5x = 50°$$

$$x = 10°$$

ÁNGULO SEMI-INSCRITO

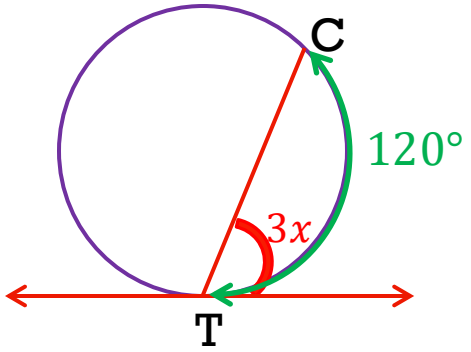


$$\theta = \frac{\beta}{2}$$

T: *Punto de Tangencia*

$\overleftrightarrow{L}$: *Recta Tangente a la circunferencia*

Ejemplo: Calcula el valor de x.

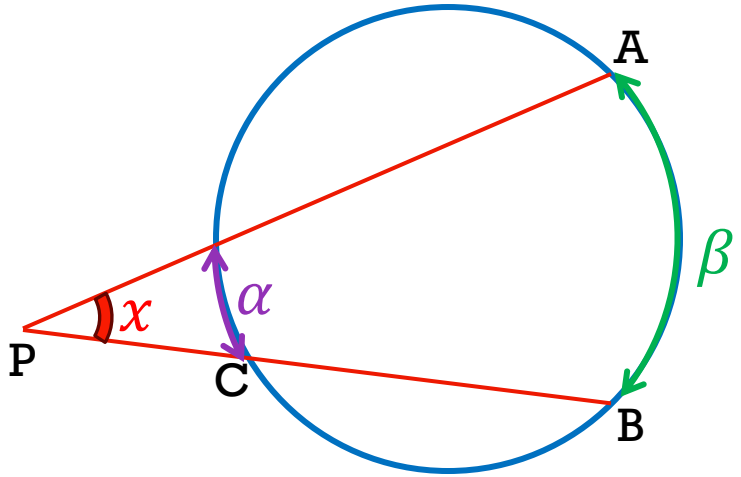


$$\Rightarrow 3x = \frac{120°}{2}$$

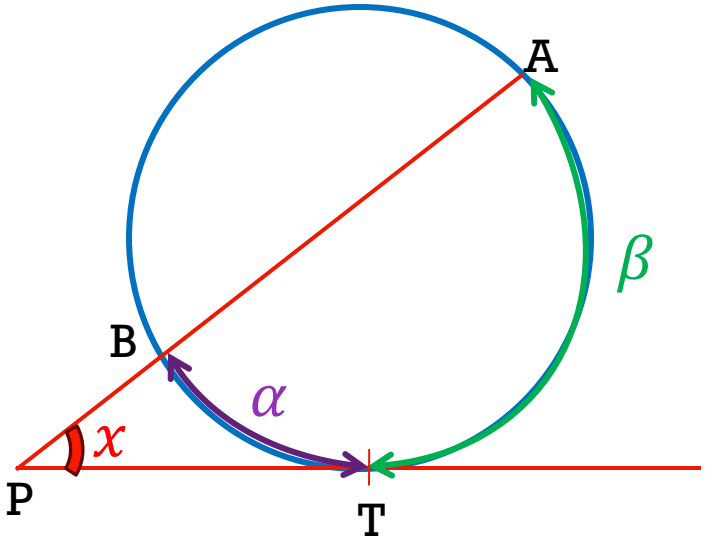
$$3x = 60°$$

$$x = 20°$$

ÁNGULO EXTERIOR



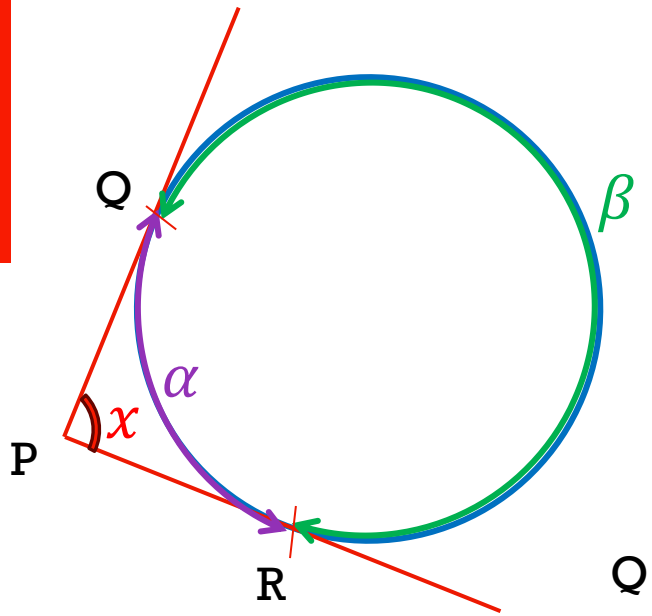
$$x = \frac{\beta - \alpha}{2}$$



$$x = \frac{\beta - \alpha}{2}$$

T: *Punto de Tangencia*

$\overleftrightarrow{L}$: *Recta Tangente a la circunferencia*

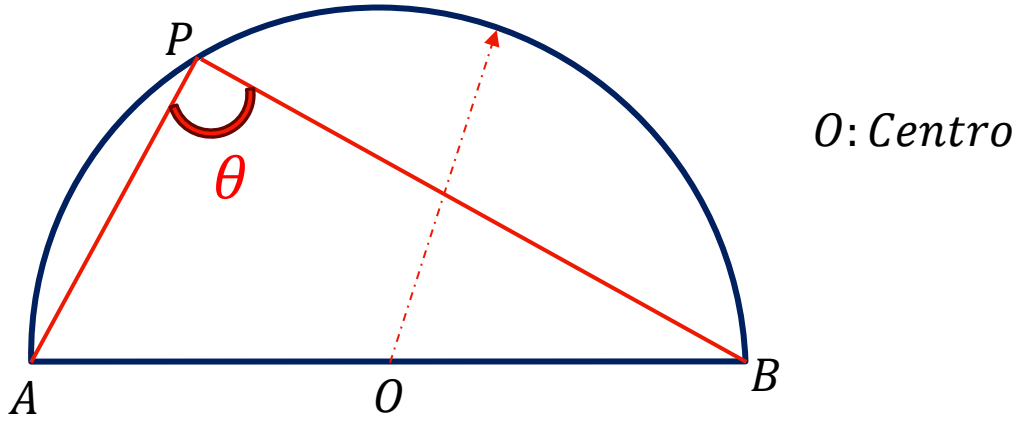


$$x = \frac{\beta - \alpha}{2}$$

$$x = 180° - \alpha$$

Q y R: *Puntos de Tangencia*

TOMA NOTA



En la semicircunferencia AB

Si P es punto de la semicircunferencia y AB es diámetro, se cumple que: $\theta = 90°$