

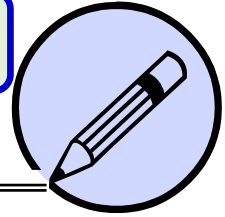


# RECURSOS DIDÁCTICOS

QUINTO DE SECUNDARIA

GEOMETRÍA

## CIRCUNFERENCIA I

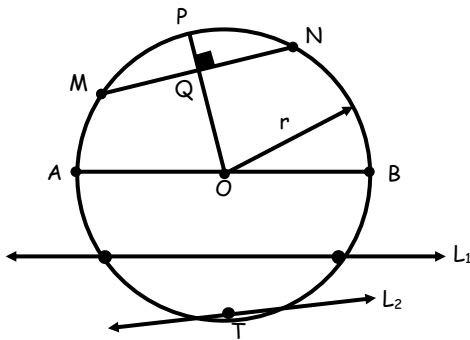


TOMA NOTA

La circunferencia es un conjunto de puntos de un plano que están a igual distancia de otro punto del plano.



### ELEMENTOS DE LA CIRCUNFERENCIA



- ❖ Centro : .....
- ❖ Radio : .....
- ❖ Cuerda : .....
- ❖ Diámetro : .....
- ❖ Arco : .....
- ❖ Flecha o sagita : .....
- ❖ Recta tangente : .....
- ❖ Recta secante : .....
- ❖ Punto de tangencia : .....

## Completa

*Sabías que*

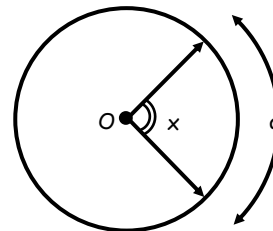
La medida angular de una circunferencia es  $360^\circ$

FIGURA	MEDIDA ANGULAR
 CIRCUNFERENCIA	<b><math>360^\circ</math></b>
 SEMICIRCUNFERENCIA	<b><math>180^\circ</math></b>
 CUADRANTE	<b><math>90^\circ</math></b>

### ÁNGULOS EN LA CIRCUNFERENCIA

#### 1. ÁNGULO CENTRAL

Su vértice es el centro y sus lados 2 radios.

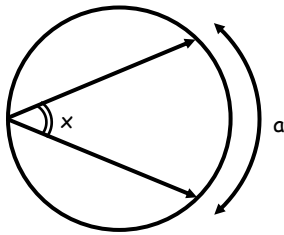


$$x = a$$

x : Ángulo central  
a : arco

2. **ÁNGULO INSCRITO**

Su vértice es un punto de la circunferencia y sus lados 2 cuerdas.

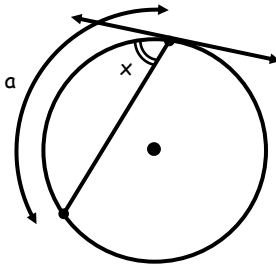


$x = \frac{a}{2}$
$a = 2x$

x : Ángulo Inscrito  
a : arco

3. **ÁNGULO SEMI-INSCRITO**

Su vértice es un punto de la circunferencia y sus lados son una cuerda y una recta. Tangente.

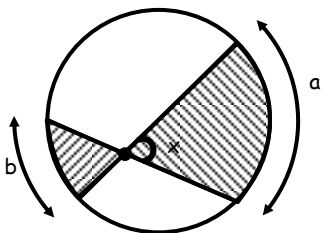


$x = \frac{a}{2}$
$a = 2x$

x : Ángulo Semi-Inscrito  
a : Arco

4. **ÁNGULO INTERIOR**

Su vértice es un punto interior y sus lados son 2 cuerdas secantes.



$x = \frac{a + b}{2}$
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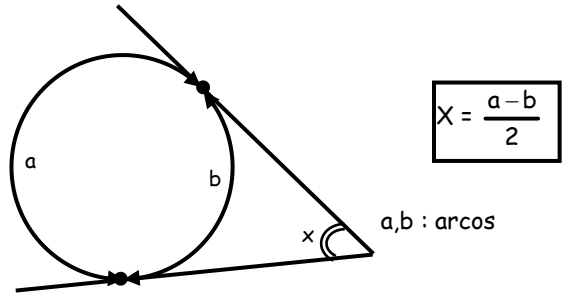
x : Ángulo Interior  
a y b : Arcos

5. **ÁNGULO EXTERIOR**

Su vértice es un punto exterior y sus lados son 2 rectas que pueden ser:

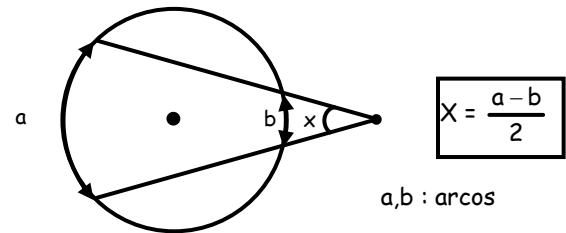
- Tangentes
- Secantes
- Una tangente y una secante

a)



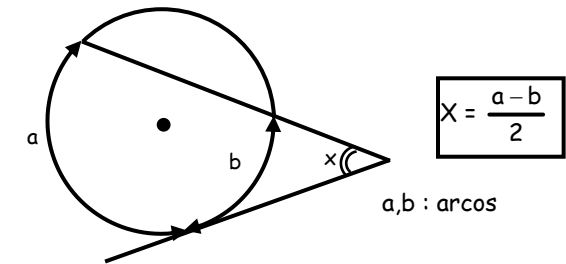
a,b : arcos

b)



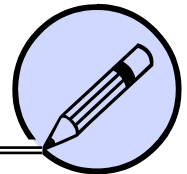
a,b : arcos

c)

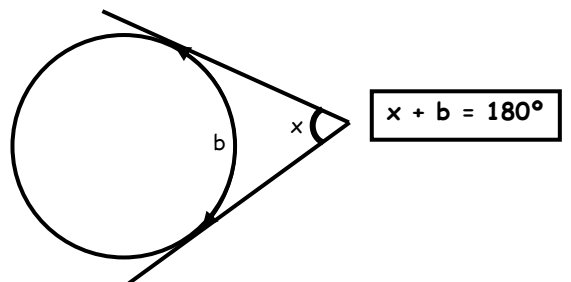


a,b : arcos

**MUY IMPORTANTE**

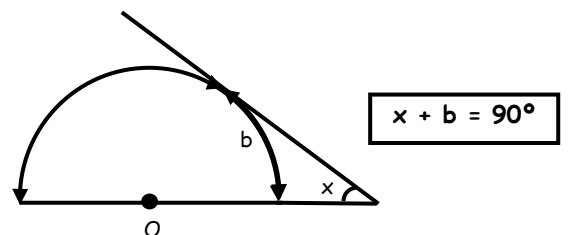


✿



$x + b = 180^\circ$
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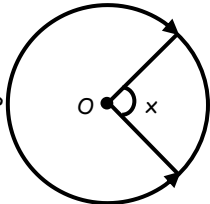
✿

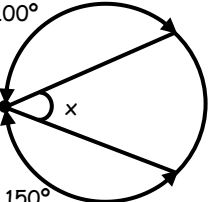


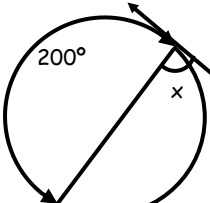
$x + b = 90^\circ$
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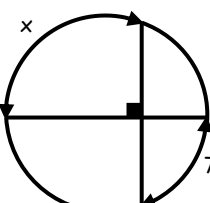
RESUELVE LOS EJEMPLOS :

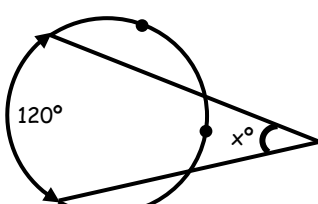
Calcular "x" en cada caso:

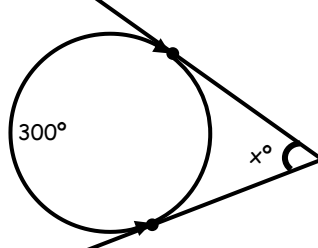
1.  "o" es centro  
 \_\_\_\_\_  
 \_\_\_\_\_

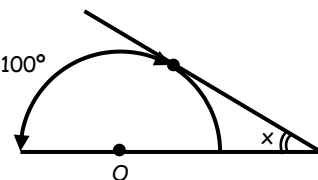
2.  \_\_\_\_\_  
 \_\_\_\_\_

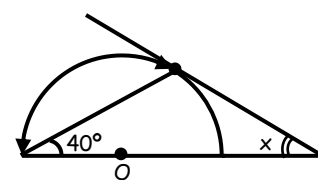
3.  \_\_\_\_\_  
 \_\_\_\_\_

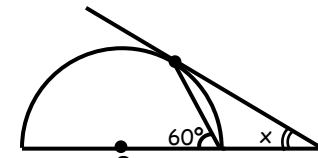
4.  \_\_\_\_\_  
 \_\_\_\_\_

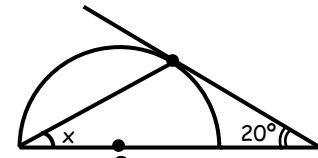
5.  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

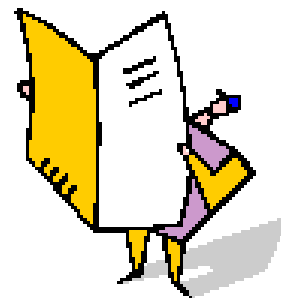
6.  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

7.  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

8.  \_\_\_\_\_  
 \_\_\_\_\_  
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9.  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

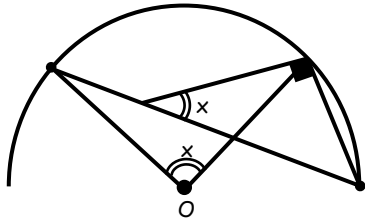
10.  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



EJERCICIOS DE APLICACIÓN

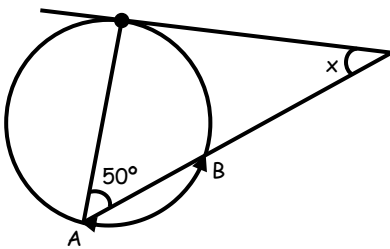
1. Hallar "x"; "O" es centro.

- a) 60°
- b) 30°
- c) 45°
- d) 72°
- e) 36°



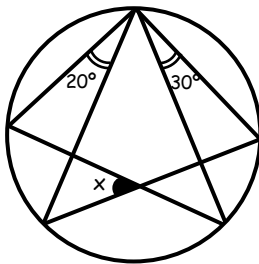
2. Hallar "x";  $m\widehat{AB} = 120^\circ$

- a) 10°
- b) 20°
- c) 30°
- d) 25°
- e) 15°



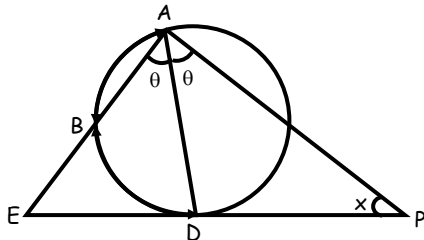
3. Hallar "x"

- a) 100°
- b) 25°
- c) 10°
- d) 30°
- e) 50°



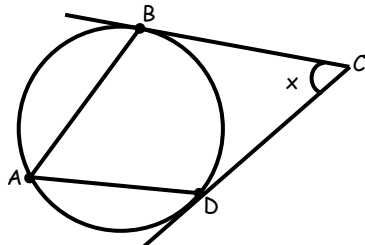
4. Hallar "x";  $m\widehat{AB} = 58^\circ$

- a) 30°
- b) 58°
- c) 29°
- d) 28°
- e) 40°



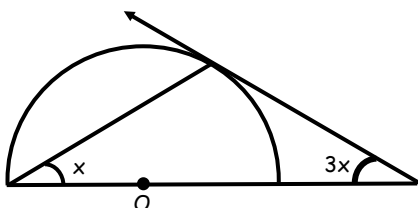
5. Hallar "x"; ABCD es un rombo

- a) 30°
- b) 90°
- c) 60°
- d) 50°
- e) 80°



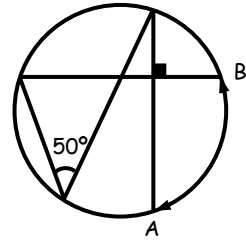
6. Hallar "x"; "O" es centro.

- a) 20°
- b) 10°
- c) 36°
- d) 15°
- e) 18°



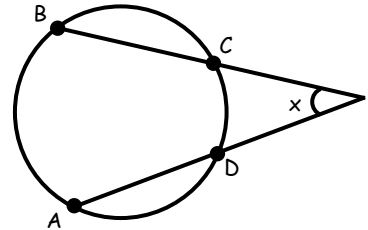
7. Hallar :  $m\widehat{AB}$

- a) 100°
- b) 50°
- c) 25°
- d) 40°
- e) 80°



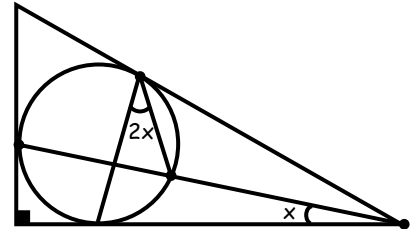
8. Hallar "x";  $m\widehat{BC} = m\widehat{CD} = m\widehat{AD}$ ;  $m\widehat{AB} = 210^\circ$

- a) 40°
- b) 80°
- c) 50°
- d) 90°
- e) 70°



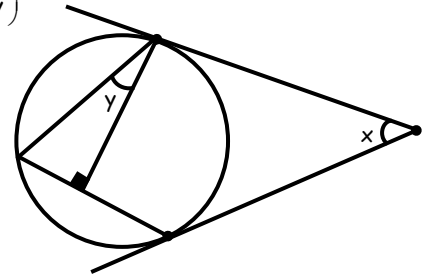
9. Hallar "x"

- a) 30°
- b) 18°
- c) 15°
- d) 20°
- e) 1°



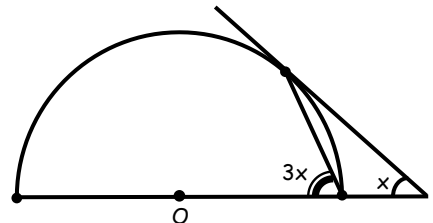
10. Hallar:  $\left(\frac{x}{y}\right)$

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5



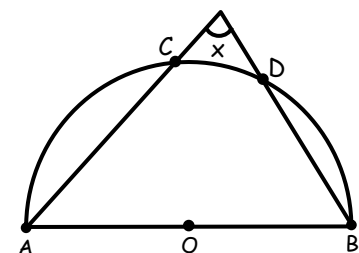
11. Hallar "x"; "O" es centro.

- a) 10°
- b) 15°
- c) 18°
- d) 12°
- e) 20°



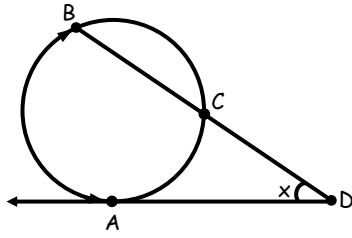
12. Hallar "x"; "O" es centro;  $m\widehat{CD} = 30^\circ$

- a) 30°
- b) 60°
- c) 75°
- d) 90°
- e) 40°



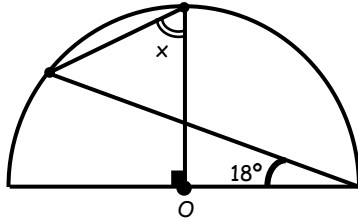
13. Hallar "x";  $m\widehat{BC} = m\widehat{CA}$ ;  $m\widehat{AB} = 4x$

- a)  $30^\circ$
- b)  $60^\circ$
- c)  $45^\circ$
- d)  $37^\circ$
- e)  $40^\circ$



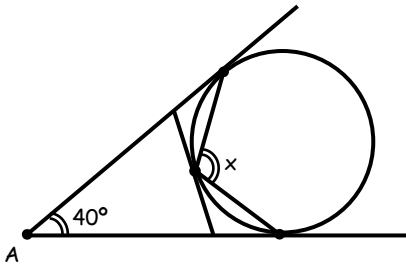
14. Hallar "x", "O" es centro

- a)  $45^\circ$
- b)  $18^\circ$
- c)  $72^\circ$
- d)  $36^\circ$
- e)  $63^\circ$



15. Hallar "x"

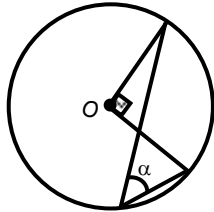
- a)  $100^\circ$
- b)  $110^\circ$
- c)  $120^\circ$
- d)  $130^\circ$
- e)  $90^\circ$



TAREA DOMICILIARIA N°2

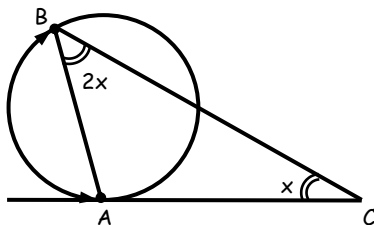
1. Hallar: "α"; "o" es centro.

- a)  $30^\circ$
- b)  $40^\circ$
- c)  $45^\circ$
- d)  $50^\circ$
- e)  $35^\circ$



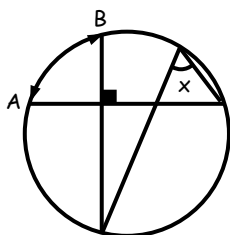
2. Hallar "x";  $m\widehat{AB} = 66^\circ$

- a)  $9^\circ$
- b)  $10^\circ$
- c)  $11^\circ$
- d)  $12^\circ$
- e)  $13^\circ$



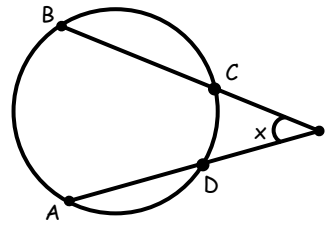
3. Hallar "x";  $m\widehat{AB} = 50^\circ$

- a)  $25^\circ$
- b)  $35^\circ$
- c)  $45^\circ$
- d)  $55^\circ$
- e)  $65^\circ$



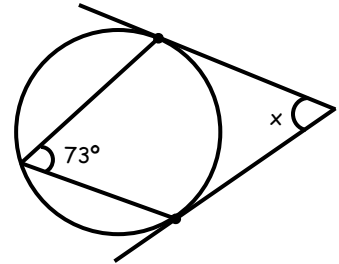
4. Hallar "x";  $m\widehat{AB} = 2m\widehat{BC}$ ;  $m\widehat{BC} = m\widehat{CD} = m\widehat{AD}$

- a)  $36^\circ$
- b)  $72^\circ$
- c)  $54^\circ$
- d)  $45^\circ$
- e)  $90^\circ$



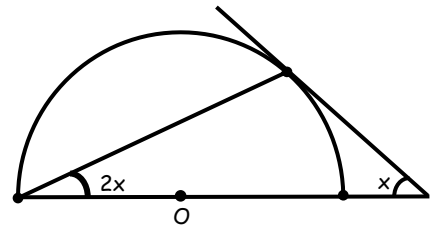
5. Hallar "x"

- a)  $40^\circ$
- b)  $73^\circ$
- c)  $68^\circ$
- d)  $44^\circ$
- e)  $34^\circ$



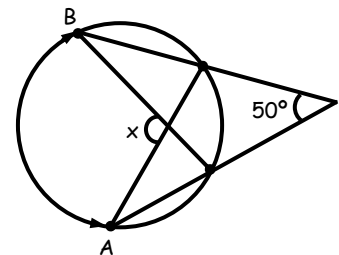
6. Hallar "x"; "O" es centro

- a)  $15^\circ$
- b)  $12^\circ$
- c)  $18^\circ$
- d)  $10^\circ$
- e)  $20^\circ$



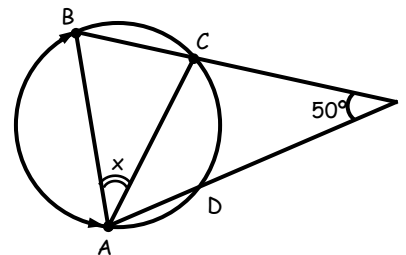
7. Hallar "x";  $m\widehat{AB} = 160^\circ$

- a)  $100^\circ$
- b)  $110^\circ$
- c)  $120^\circ$
- d)  $130^\circ$
- e)  $90^\circ$



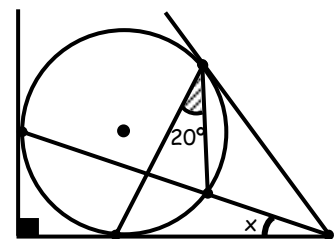
8. Hallar "x";  $m\widehat{BC} = m\widehat{CD} = m\widehat{AD}$

- a)  $\frac{65^\circ}{2}$
- b)  $\frac{53^\circ}{2}$
- c)  $\frac{45^\circ}{2}$
- d)  $18^\circ$
- e)  $20^\circ$



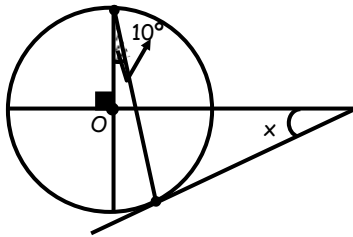
9. Hallar "x"

- a)  $20^\circ$
- b)  $25^\circ$
- c)  $30^\circ$
- d)  $35^\circ$
- e)  $40^\circ$



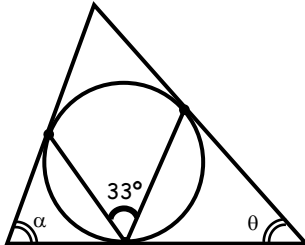
10. Hallar "x" ; "O" es centro.

- a)  $10^\circ$
- b)  $5^\circ$
- c)  $20^\circ$
- d)  $70^\circ$
- e)  $45^\circ$



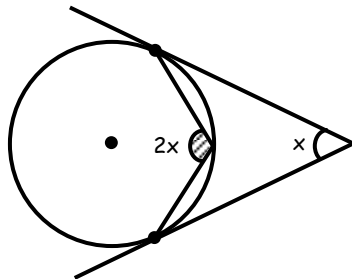
11. Hallar :  $(\alpha + \theta)$

- a)  $33^\circ$
- b)  $11^\circ$
- c)  $22^\circ$
- d)  $44^\circ$
- e)  $66^\circ$



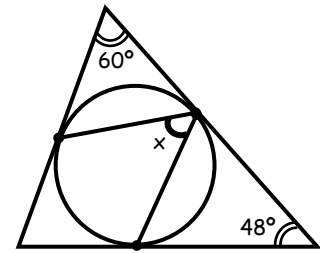
12. Hallar "x"

- a)  $30^\circ$
- b)  $45^\circ$
- c)  $60^\circ$
- d)  $90^\circ$
- e)  $50^\circ$



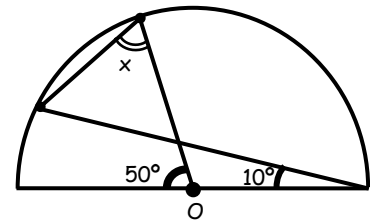
13. Hallar "x"

- a)  $60^\circ$
- b)  $48^\circ$
- c)  $72^\circ$
- d)  $54^\circ$
- e)  $108^\circ$



14. Hallar "x" ; "O" es centro

- a)  $55^\circ$
- b)  $65^\circ$
- c)  $75^\circ$
- d)  $80^\circ$
- e)  $20^\circ$



15. Hallar "x"

- a)  $80^\circ$
- b)  $70^\circ$
- c)  $60^\circ$
- d)  $50^\circ$
- e)  $40^\circ$

