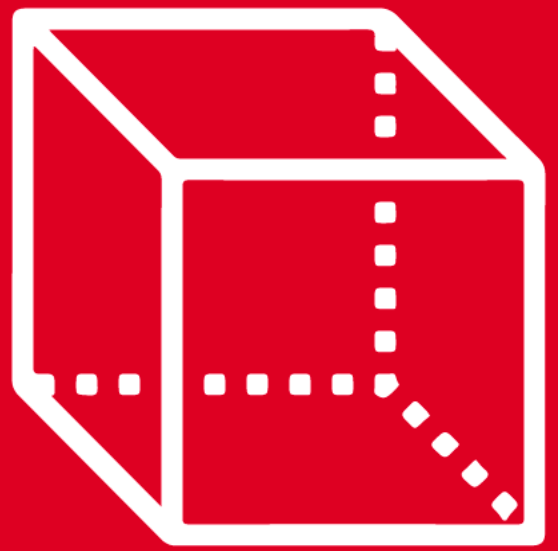
GEOMETRY

INTRODUCTORIO



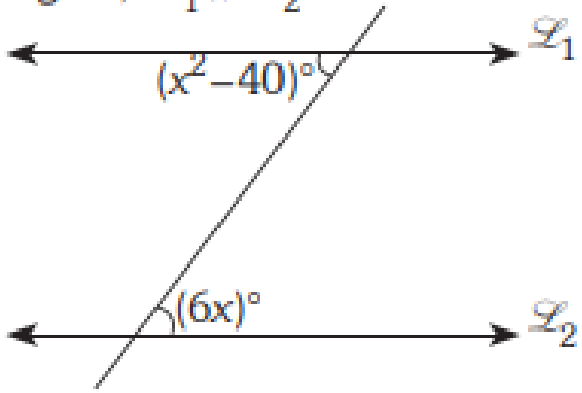
VERANO SAN MARCOS

ÁNGULOS ENTRE RECTAS PARALELAS

SACO OLIVEROS

HISTORIA DE LA GEOMETRÍA

1. En la figura, $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.



A) 12
B) 15
~~C)~~ 10
D) 4

Piden : x
Por ángulos alternos internos :

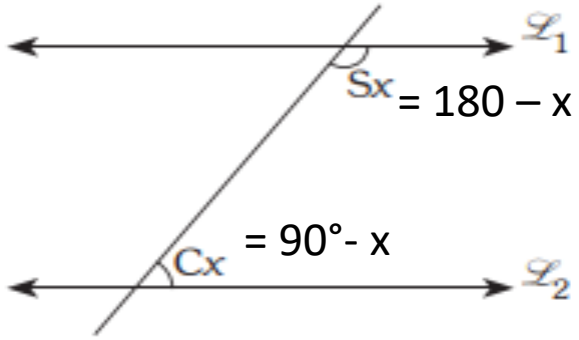
x^2 - 40 = 6x
x^2 - 6x – 40 = 0

X -10
X +4

Luego : x – 10 = 0
x=10°

Clave C

2. Si Cx: complemento de x y Sx: suplemento de x; halle el valor de x, siendo $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$.



A) 36°
B) 30°
C) 60°
D) 45°

Piden : X

Por ángulos conjugados :

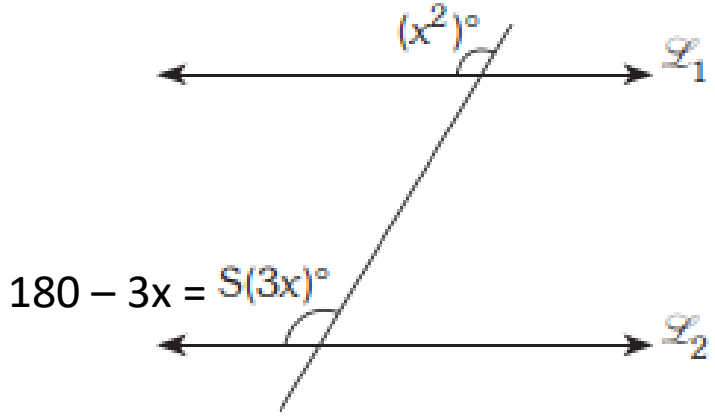
180 – x + 90 – x = 180°

90 = 2x

45° = x

Clave D

3. En la figura, $\overleftrightarrow{\mathcal{L}_1} \parallel \overleftrightarrow{\mathcal{L}_2}$. Halle el valor de x.

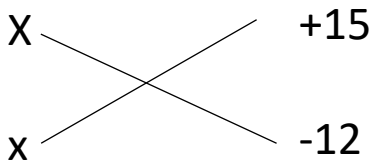


A) 15 B) 12
C) 10 D) 20

Por ángulos correspondientes

$x^2 = 180 - 3x$

$x^2 + 3x - 180 = 0$

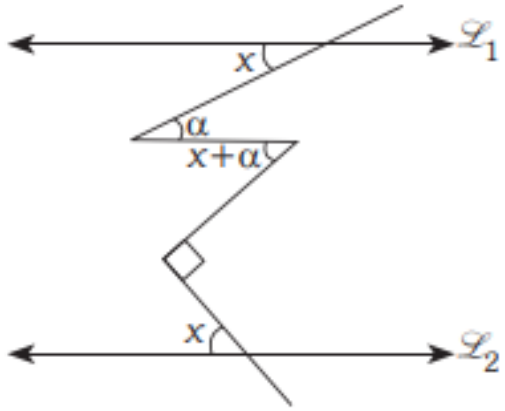


Luego : x – 12 = 0

X = 12°

Clave B

4. En la figura, $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.



A) 20°

B) 15°

C) 30°

D) 36°

Piden : x

Por teorema :

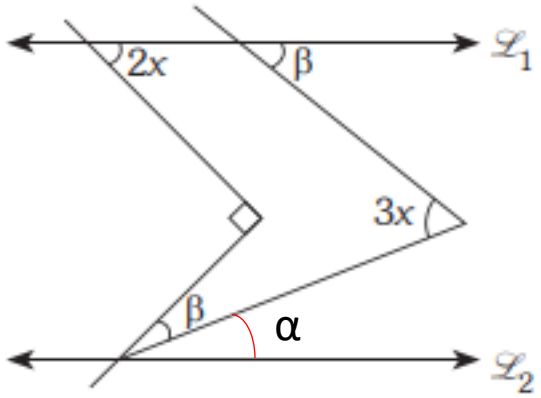
$X + x + \alpha + x = \alpha + 90$

$3x = 90°$

$X = 30°$

Clave C

5. En la figura, $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.



A) 18°
B) 12
C) 15°
D) 10°

Por teorema :

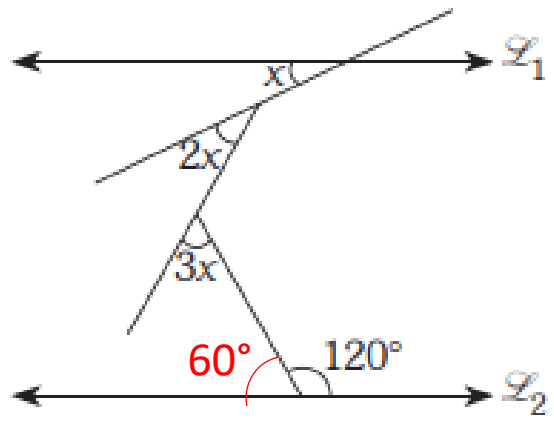
-) $3x = \alpha + \beta$
-) $90 = 2x + \beta + \alpha$ } (-)

$3x - 90 = -2x$
$5x = 90$
$X = 18°$

Clave A

6. En la figura, $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.

A) 12°
B) 15°
C) 18°
D) 20°



Piden x

Por teorema :

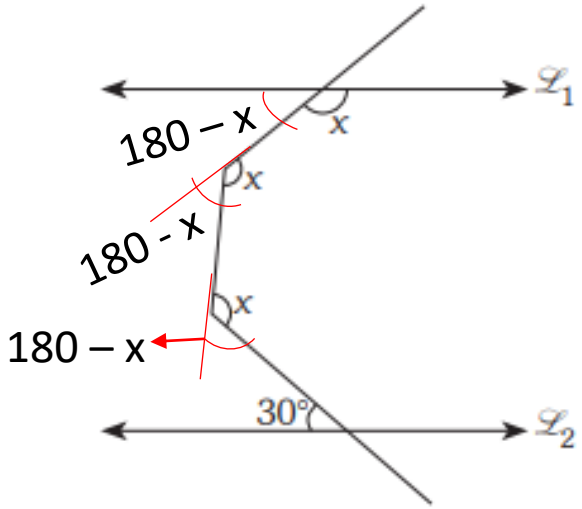
X + 2x + 3x + 60 = 180°

6x = 120

X = 20°

Clave D

7. En la figura, $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.

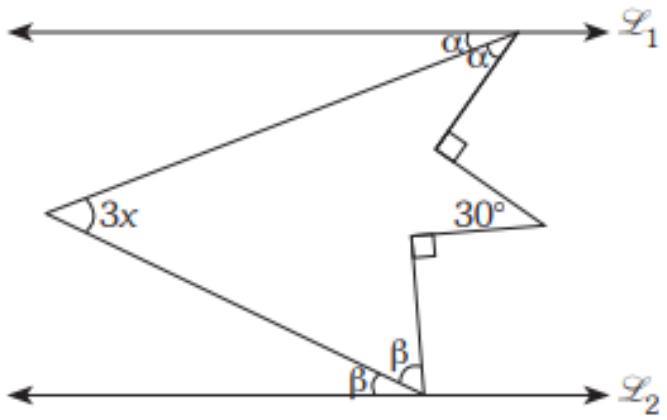


A) 100°
B) 110°
C) 120°
D) 130°

Piden: x
Piden teorema :
3 (180-x)+ 30 = 180°
3(180-x)= 150
180 – x = 50
130° = x

Clave D

8. En la figura, $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.



A) 20°
B) 25°
C) 18°
D) 15°

Piden : x

Por teorema :

-) $\alpha + \beta = 3x$

-) $2\alpha + 30 + 2\beta = 90 + 90$

$2\alpha + 2\beta = 150$ (:2)

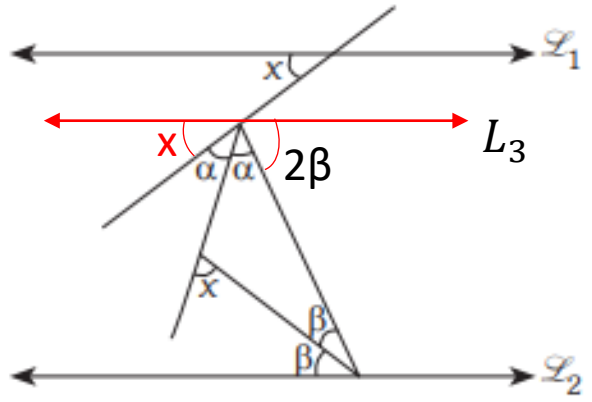
$\underbrace{\alpha + \beta}=75$

$3x = 75$

$X = 25°$

Clave B

9. En la figura, $\overleftrightarrow{\mathscr{L}_1} \parallel \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.



A) 45°
B) 30°
~~C) 60°~~
D) 36°

Por teorema :

X + α + x + β = 180°

2x + α + β = 180

α+β=180 – 2x

Le traza $\overleftrightarrow{L1}$ || $\overleftrightarrow{L3}$:

X+2α+2β=180°

X + 2(α + β) = 180

X+2 (180 -2X)=180

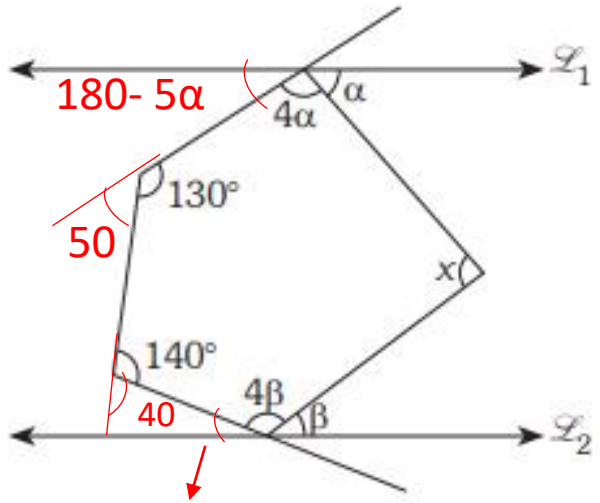
X+360 -4X=180

180 = 3X

60°=X

Clave C

10. En la figura, $\overleftrightarrow{\mathscr{L}_1} // \overleftrightarrow{\mathscr{L}_2}$. Halle el valor de x.



A) 72°
B) 36°
C) 54°
D) 84°

Piden : X

Por teorema:

$x=\alpha+\beta$

Luego :

$180-5\alpha+50+40+180-5\beta=180$

$270=5\alpha+5\beta \ (:5)$

$54=\underbrace{\alpha+\beta}$

$54°=x$

Clave C