

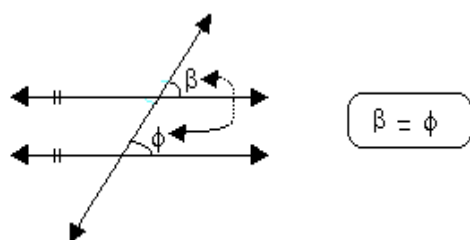


FICHAS DE ÁNGULOS II

ANGULOS ENTRE DOS RECTAS PARALELAS

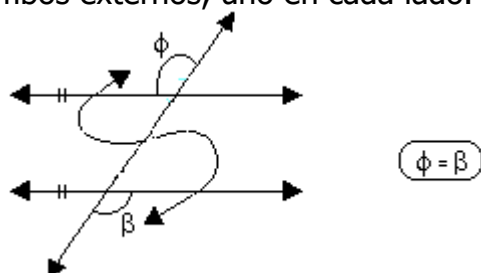
ANGULOS CORRESPONDIENTES

Uno interno y el otro externo, a un mismo lado.



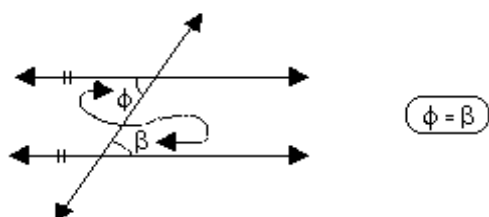
ANGULOS ALTERNOS EXTERNOS

Ambos externos, uno en cada lado.



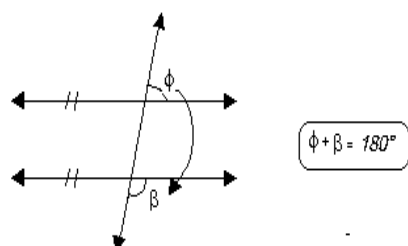
ANGULOS ALTERNOS INTERNOS

Ambos internos, uno en cada lado.



ANGULOS CONJUGADOS EXTERNOS

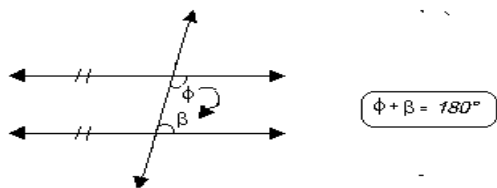
Ambos externos y en un mismo lado.



ANGULOS CONJUGADOS INTERNOS

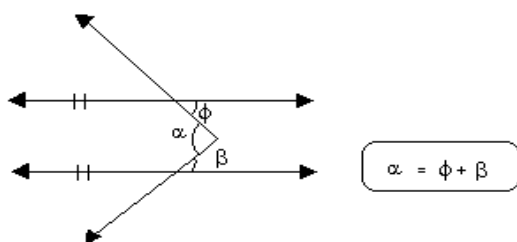
Ambos internos y en un mismo lado.

GEOMETRIA

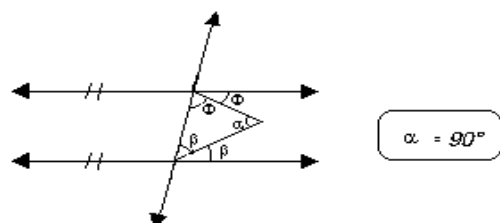


PROPIEDADES

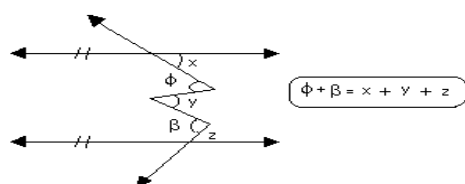
1.



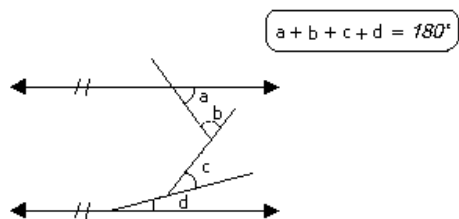
2.



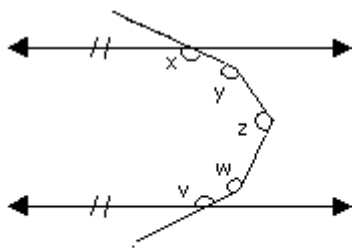
3.



4.

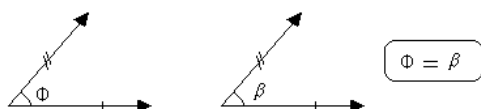


5.

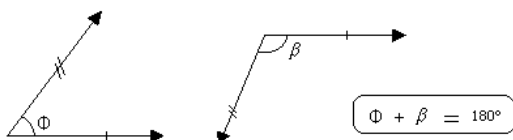


$$x + y + z + w + v = 180^\circ \text{ N}^\circ \text{ de segmentos}$$

6. Ángulos de lados paralelos.

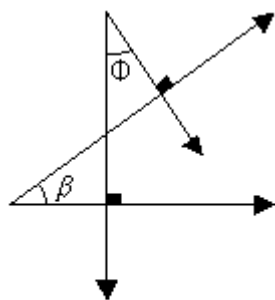


$$\Phi = \beta$$

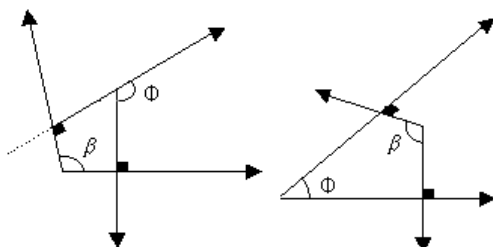


$$\Phi + \beta = 180^\circ$$

7. Ángulos de lados perpendiculares.



$$\Phi = \beta$$

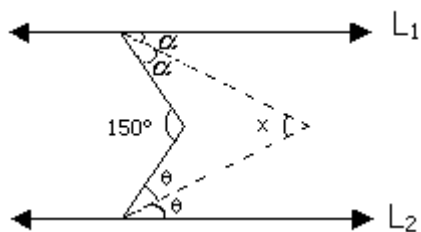


$$\Phi = \beta$$

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

EJEMPLOS

1. En el gráfico $\vec{l}_1 \parallel \vec{l}_2$. Hallar "x".



Resolución :

Por propiedad No. 1

$$X = \alpha + \theta \dots \textcircled{1}$$

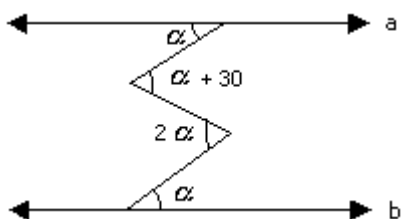
$$150 = 2\alpha + 2\theta$$

$$75 = \alpha + \theta \dots \textcircled{2}$$

$$\Rightarrow \textcircled{2} \in \textcircled{1}$$

$$x = 75^\circ$$

2. En el gráfico. Hallar el complemento de " α " si $\vec{a} \parallel \vec{b}$



Resolución: Por propiedad No. 3

$$(\alpha + 30) + \alpha = \alpha + 2\alpha$$

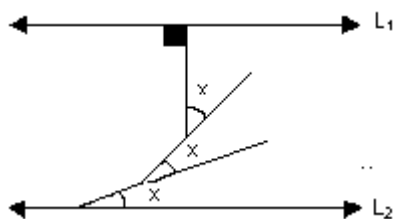
$$2\alpha + 30 = 3\alpha$$

$$\alpha = 30^\circ$$

Comple $(90^\circ - 30) =$

$$\alpha = 60^\circ$$

3. En la siguiente figura. Hallar el valor de " x " si $\vec{l}_1 \parallel \vec{l}_2$



Resolución :

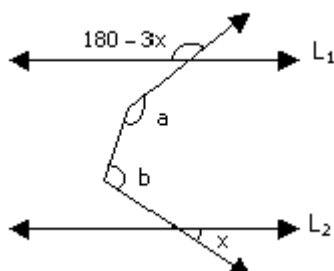
Por propiedad No. 4

$$90 + x + x + x = 180^\circ$$

$$3x = 90^\circ$$

$$x = 30^\circ$$

4. En la figura $\vec{L}_1 \parallel \vec{L}_2$; $a + b = 236^\circ$.
Calcular "x"



Resolución: Por propiedad No. 5:

$$180 - 3x + a + b + 180 - x = 180(3)$$

$$180 - 3x + \overset{236}{a + b} + 180 - x = 540$$

$$596 - 4x = 540$$

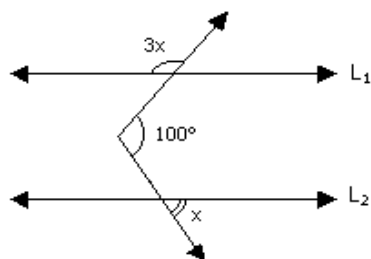
$$596 - 540 = 4x$$

$$56 = 4x$$

$$x = 14^\circ$$

**CONSTRUYENDO
MIS CONOCIMIENTOS**

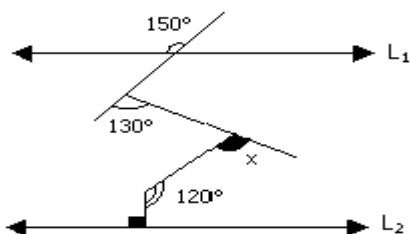
1. Si: $\vec{L}_1 \parallel \vec{L}_2$. Hallar "x".



- a) 25° b) 30° c) 40°
d) 80° e) 36°

Resolución :

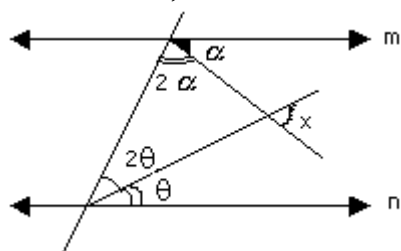
2. Si: $\vec{L}_1 \parallel \vec{L}_2$, hallar "x"



- a) 10° b) 80° c) 120°
d) 130° e) 110°

Resolución :

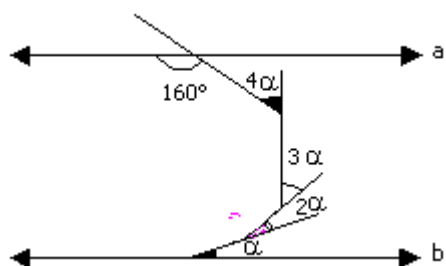
3. Si: $\vec{m} \parallel \vec{n}$, hallar "x"



- a) 30° b) 40° c) 50°
d) 60° e) 70°

Resolución :

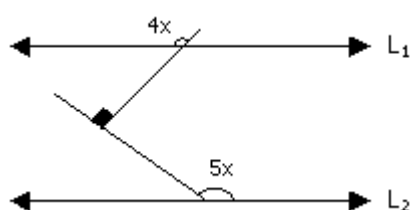
4. Sí en la figura $\vec{a} \parallel \vec{b}$. Hallar "α"



- a) 10° b) 12° c) 13°
d) 15° e) 16°

Resolución :

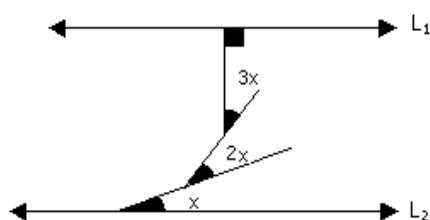
5. En la figura, hallar "x", si: $\vec{L}_1 \parallel \vec{L}_2$



- a) 20° b) 30° c) 40°
d) 25° e) 15°

Resolución :

6. En la figura: $\vec{L}_1 \parallel \vec{L}_2$, hallar "x"



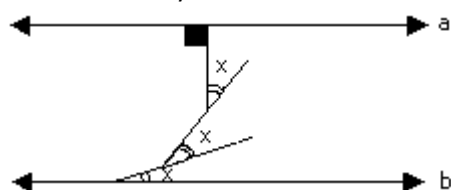
- a) 15° b) 18° c) 12°
d) 20° e) 30°

Resolución :

REFORZANDO

MIS CAPACIDADES

1. Si: $\vec{a} \parallel \vec{b}$, hallar "x"

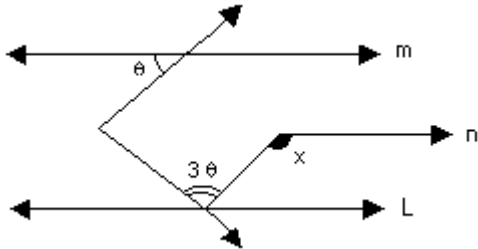


- a) 40° b) 30° c) 50°

d) 60° e) 45°

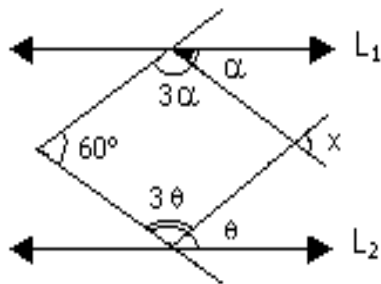
$$\vec{m} \parallel \vec{n} \parallel \vec{L}$$

2. Si: , hallar "x"



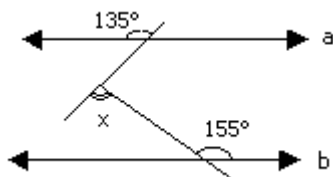
- a) $90^\circ + \theta$ b) $90^\circ + 2\theta$
 c) $120^\circ + \theta$ d) $120^\circ - \theta$
 e) $180^\circ - 2\theta$

3. Hallar "x", si: $\vec{L}_1 \parallel \vec{L}_2$



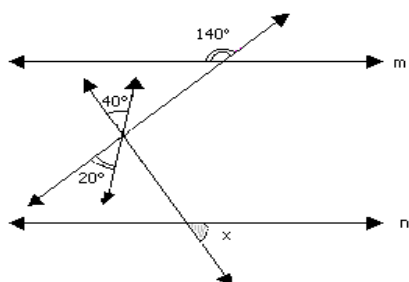
- a) 60° b) 40° c) 30°
 d) 75° e) 45°

4. Hallar "x", si: $\vec{a} \parallel \vec{b}$



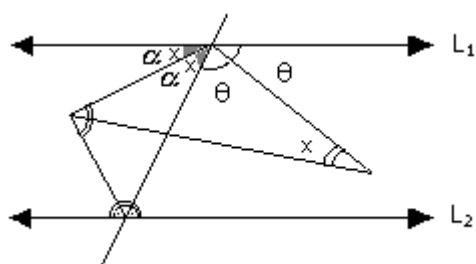
- a) 100° b) 110° c) 120°
 d) 125° e) 130°

5. Si: $\vec{m} \parallel \vec{n}$, hallar "x"



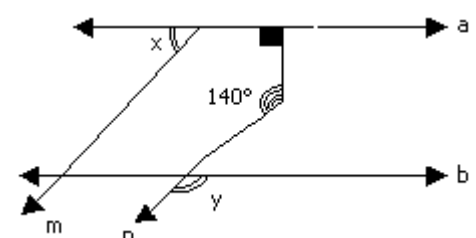
- a) 60° b) 40° c) 50°
d) 80° e) 70°

6. Si: $\vec{L}_1 \parallel \vec{L}_2$, hallar "x"



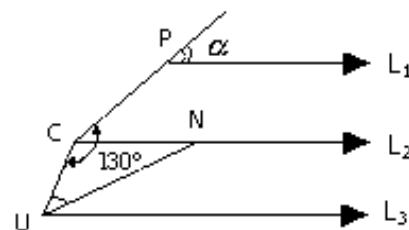
- a) 30° b) 45° c) 50°
d) 55° e) 52°

7. Si: $\vec{a} \parallel \vec{b}$ y $\vec{m} \parallel \vec{n}$, hallar "y - x"



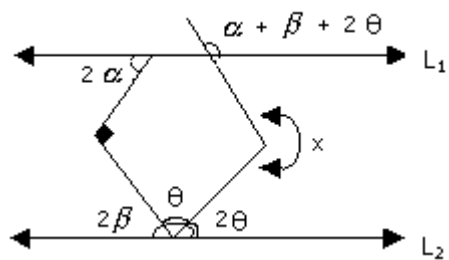
- a) 60° b) 70° c) 80°
d) 75° e) 65°

8. Si: $\vec{L}_1 \parallel \vec{L}_2 \parallel \vec{L}_3$
 $\vec{UN} \parallel \vec{CP}$ y $\alpha + \theta = 100^\circ$
Calcular: "α"



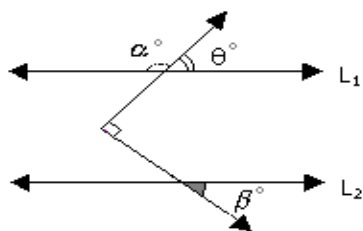
- a) 40° b) 50° c) 60° d) 70° e) 80°

9. Calcular "x", si $\vec{L}_1 \parallel \vec{L}_2$



- a) 150° b) 175° c) 225°
d) 215° e) 188°

10. Hallar " θ " si $\vec{L}_1 \parallel \vec{L}_2$ y $\alpha + \beta = 160^\circ$



- a) 55° b) 65° c) 35°
d) 45° e) 75°