TRIÁNGULOS IX

I. CONGRUENCIA

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II. CONGRUENCIA DE FIGURAS

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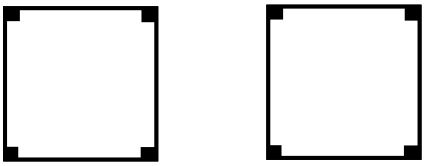
Ej:



III. CONGRUENCIA DE TRIÁNGULOS

Existen 3 casos de congruencia:

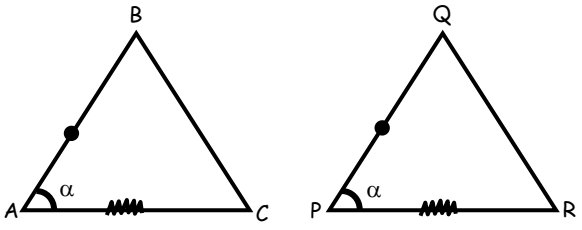
LLL , ALA y LAL

Ojo:

L = Lado

A = Ángulo

CASO I : (LAL)



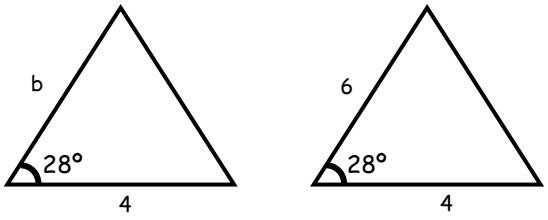
Si: AB = PQ y AC = PR, además

Poseen el mismo ángulo m∢A = m∢P

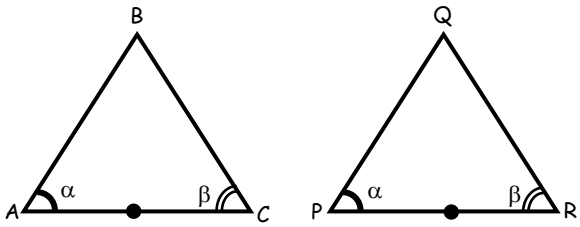
⇨ ΔABC ≅ PQR

Ej: Si los Δ son congruentes.

Calcular "b".



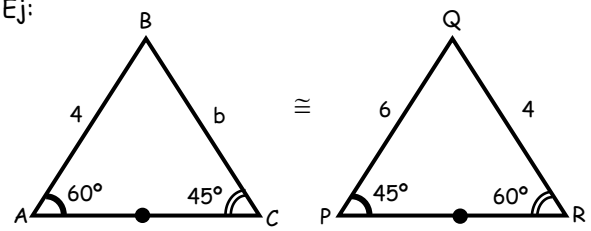
CASO II: (ALA)



Si: m∢A = m∢P ; m∢C = m∢R

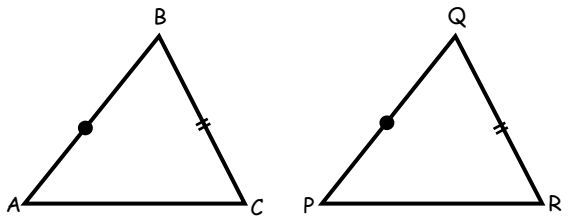
Y AC = PR ★ ΔABC ≅ PQR

Ej:



Calcular "b"

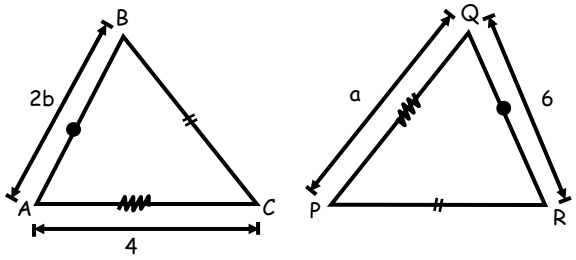
CASO III : (LLL)



Si: AB = PQ ; AC = PR y BC = QR

★ $\Delta ABC \cong \Delta PQR$

Ej:

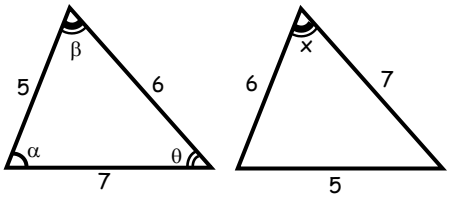


Calcular : a + b

Ejercicios de Aplicación

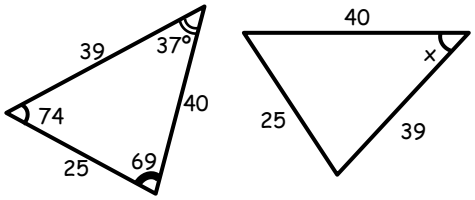
1. Calcular "x"

a) α
b) β
c) θ
d) $\alpha + \beta$
e) $\theta - \beta$



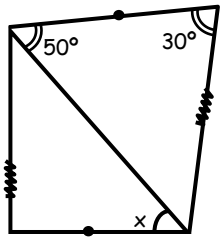
2. Calcular "x"

a) 37
b) 74
c) 69
d) 111
e) 106



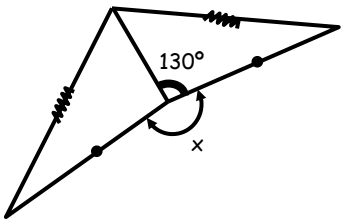
3. Calcular "x"

a) 10
b) 30
c) 50
d) 20
e) 80



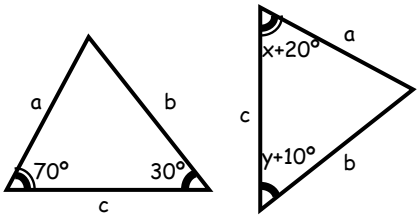
4. Calcular "x"

a) 110°
b) 200°
c) 100°
d) 130°
e) 120°



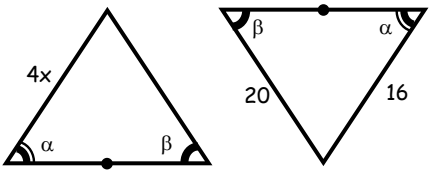
5. Calcular "x + y"

a) 30°
b) 40°
c) 100°
d) 70°
e) 20°



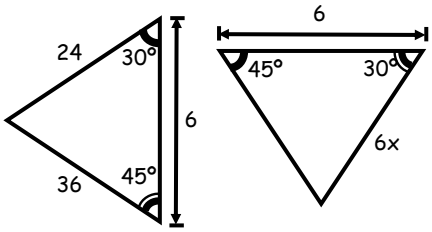
6. Calcular "x"

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



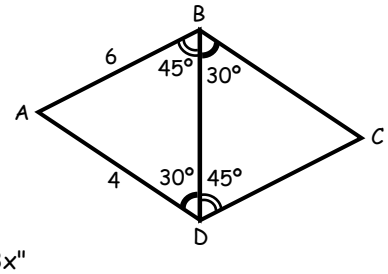
7. Calcular "x"

a) 2
b) 4
c) 6
d) 8
e) 10



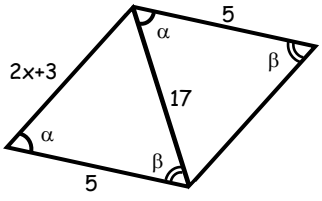
8. Calcular el perímetro ABCD

a) 4
b) 6
c) 10
d) 20
e) 15



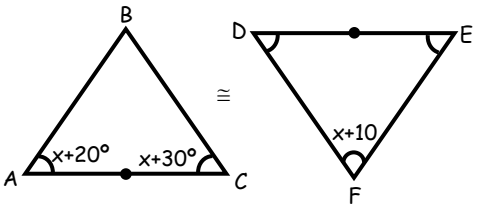
9. Calcular "3x"

a) 21
b) 12
c) 17
d) 14
e) 19



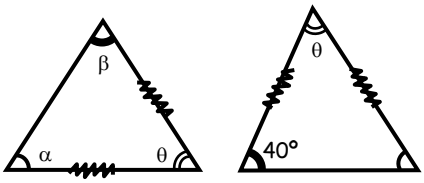
10. Calcular "x"

a) 20°
b) 40°
c) 60°
d) 80°
e) 100°



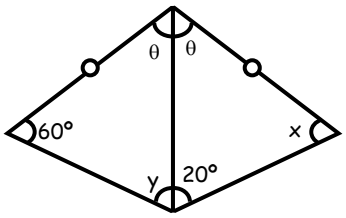
11. Calcular $x = \alpha + \beta$.

a) 20°
b) 40°
c) 60°
d) 80°
e) 100°



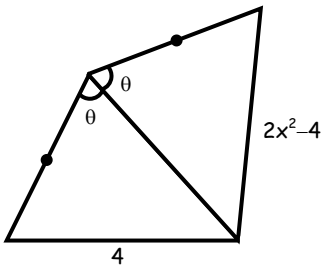
12. Calcular $x - y$

a) 80°
b) 60°
c) 40°
d) 20°
e) 0°



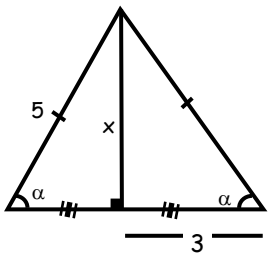
13. Calcular "x"

a) 2
b) 4
c) 6
d) 8
e) 10



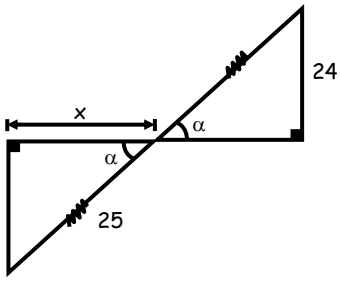
14. Calcular "x"

a) 2
b) 4
c) 6
d) 8
e) 10



15. Calcular "x"

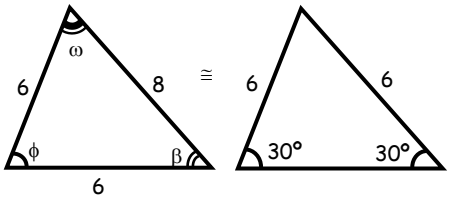
a) 2
b) 4
c) 6
d) 7
e) 9



Tarea Domiciliaria

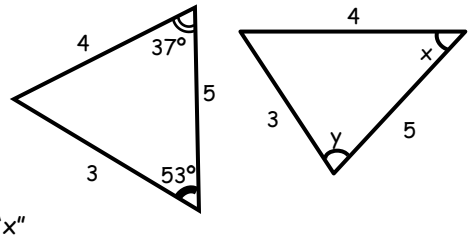
1. Calcular ϕ.

a) 120°
b) 150°
c) 60°
d) 180°
e) 40°



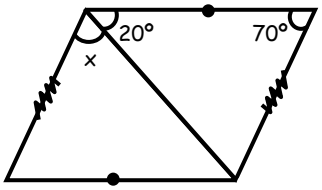
2. Calcular "y − x"

a) 8°
b) 16°
c) 24°
d) 32°
e) 40°



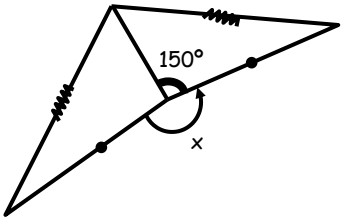
3. Calcular "x"

a) 20°
b) 70°
c) 90°
d) 60°
e) 120°



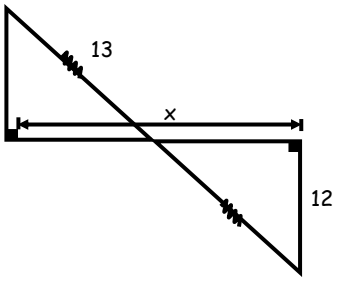
4. Calcular $\frac{x}{2}$

a) 150°
b) 90°
c) 100°
d) 45°
e) 30°



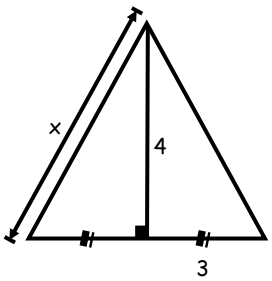
5. Calcular "x"

a) 3
b) 4
c) 5
d) 7,5
e) 10



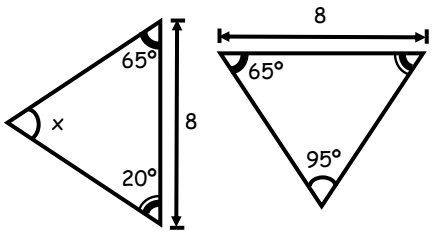
6. Calcular "x"

a) 4
b) 5
c) 6
d) 7
e) 8



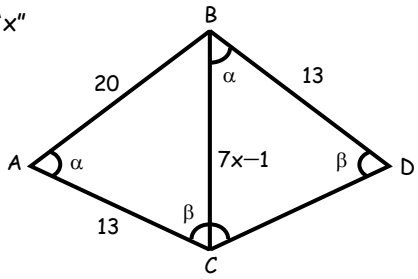
7. Calcular "x"

a) 65°
b) 20°
c) 85°
d) 95°
e) 45°



8. Calcuar "x"

a) 2
b) 3
c) 4
d) 5
e) 6

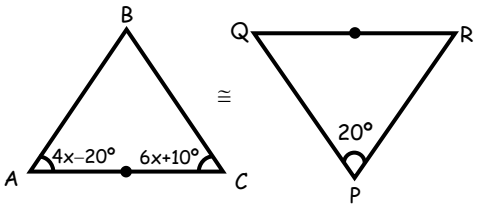


9. Del problema anterior. Calcular el semiperímetro de ΔBCD (triángulo)

a) $\frac{53}{2}$
b) $\frac{33}{2}$
c) $\frac{43}{2}$
d) $\frac{163}{2}$
e) $\frac{23}{2}$

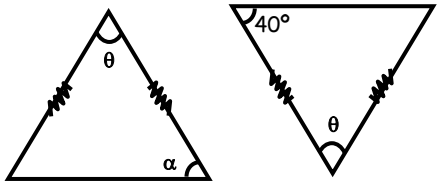
10. Calcular "x"

a) 11°
b) 13°
c) 17°
d) 19°
e) 23°



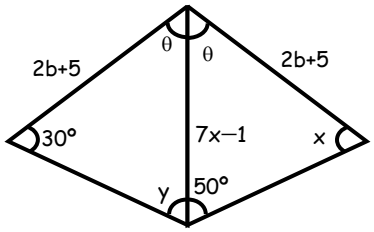
11. Calcular $\alpha + \theta$.

a) 100°
b) 120°
c) 140°
d) 100°
e) 180°



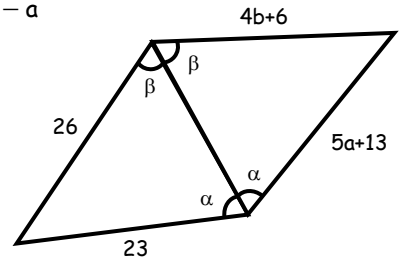
12. Calcular x/y

a) 1
b) 6/5
c) 3/5
d) 4/5
e) 2/5



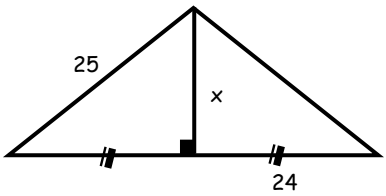
13. Calcular: b − a

a) 2
b) 5
c) 3
d) 6
e) 7



14. Calcular "x"

a) 104
b) $\sqrt{37}$
c) $\sqrt{23}$
d) 7
e) 13



15. Calcular "x"

a) 10
b) 5
c) 7
d) 12
e) 4