

Congruencia de Triángulos

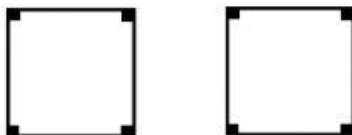
I. CONGRUENCIA

.....
.....

II. CONGRUENCIA DE FIGURAS

.....
.....
.....

Ej:



III. CONGRUENCIA DE TRIÁNGULOS

Existen 3 casos de congruencia:

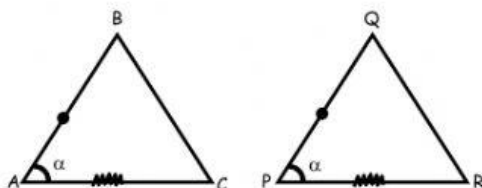
LLL, ALA y LAL

Ojo:

L = Lado
A = Ángulo

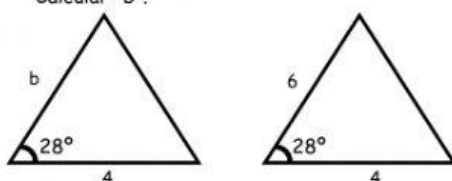


CASO I : (LAL)

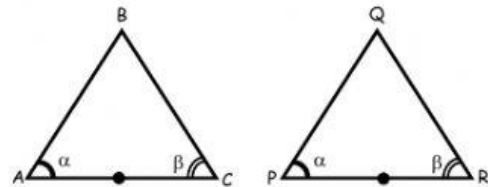


Si: $AB = PQ$ y $AC = PR$, además
Poseen el mismo ángulo $m\angle A = m\angle P$
 $\Rightarrow \triangle ABC \cong \triangle PQR$

Ej: Si los Δ son congruentes.
Calcular "b".

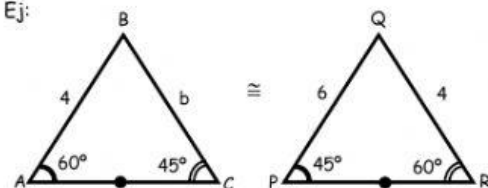


CASO II: (ALA)



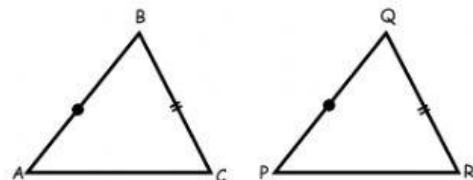
Si: $m\angle A = m\angle P$; $m\angle C = m\angle R$
Y $AC = PR$ * $\triangle ABC \cong \triangle PQR$

Ej:



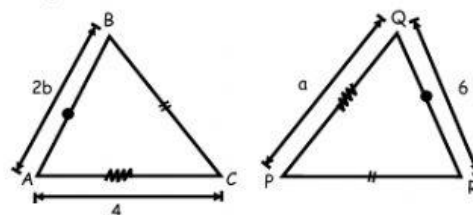
Calcular "b"

CASO III : (LLL)



Si: $AB = PQ$; $AC = PR$ y $BC = QR$
* $\triangle ABC \cong \triangle PQR$

Ej:



Calcular : $a + b$

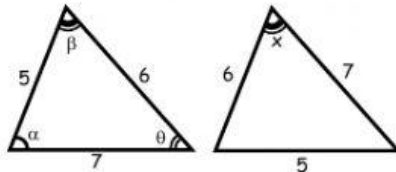


Ejercicios de Aplicación

Escribe tu alternativa en el recuadro

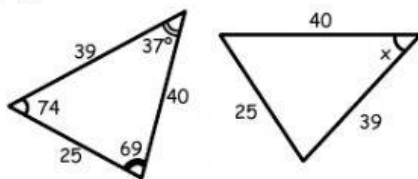
1. Calcular "x"

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



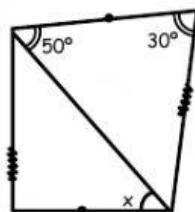
2. Calcular "x"

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



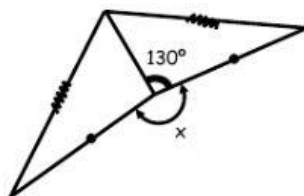
3. Calcular "x"

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



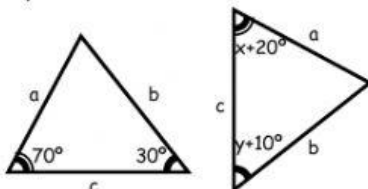
4. Calcular "x"

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



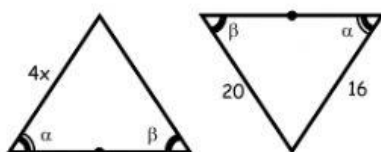
5. Calcular "x + y"

- a) 30°
- b) 40°
- c) 100°
- d) 70°
- e) 20°



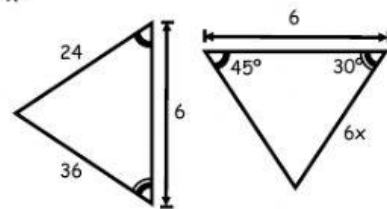
6. Calcular "x"

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



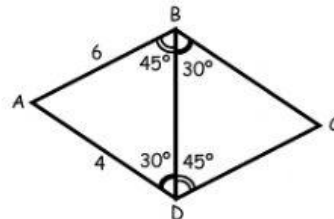
7. Calcular "x"

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



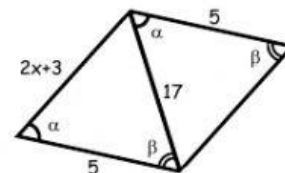
8. Calcular el perímetro ABCD

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



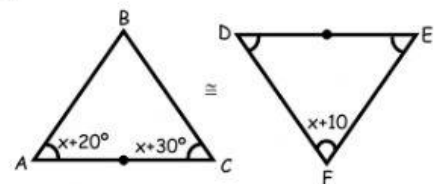
9. Calcular "3x"

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



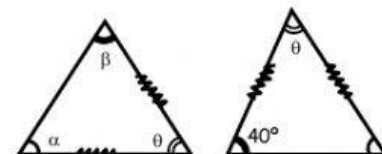
10. Calcular "x"

- a) 20°
- b) 40°
- c) 60°
- d) 80°
- e) 100°



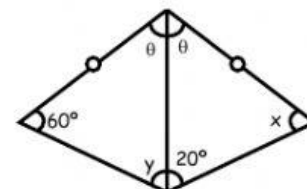
11. Calcular $x = \alpha + \beta$.

- a) 20°
- b) 40°
- c) 60°
- d) 80°
- e) 100°



12. Calcular $x - y$

- a) 80°
- b) 60°
- c) 40°
- d) 20°
- e) 0°



Repaso

Completa la siguiente operación:

$$B = \frac{\frac{2 - \frac{1}{3}}{\frac{3}{4}} + \frac{1 + \frac{2}{3}}{\frac{1}{4}}}{1 - \frac{1}{2}} \times \frac{9}{40}$$

$$B = \frac{\frac{\frac{3}{3}}{\frac{4}{4}} + \frac{\frac{1}{1}}{\frac{4}{4}}}{\frac{1}{4}} \times \frac{9}{40}$$

$$B = \frac{\frac{\frac{3}{3}}{\frac{4}{4}} + \frac{\frac{1}{1}}{\frac{4}{4}}}{\frac{1}{4}} \times \frac{9}{40}$$

$$B = \frac{\frac{3}{3}}{\frac{4}{4}} \times \frac{9}{40}$$

COLOCA LA SUMA SIMPLIFICADA

$$B = \frac{3}{4} \times \frac{9}{40}$$

MULTIPLICA Y SIMPLIFICA

$$B =$$

2. Relaciona:

1. $\sqrt{\sqrt{\frac{16}{81}}}$	a. $\frac{3}{2}$
2. $\left(-\frac{2}{3}\right)^{-1}$	b. $\frac{2}{9}$
3. $\left(\frac{2}{3}\right)^3 \times \sqrt{\frac{9}{16}}$	c. $\frac{2}{3}$
4. $\sqrt{3 + \frac{3}{8}}$	d. $\left(-\frac{3}{2}\right)$

3. Divide la siguiente expresión:

$$\frac{12a^5b^5 - 24a^3b^4 - 18a^4b^2}{6a^2b^2}$$

$$a \quad b \quad - \quad ab \quad - \quad a$$

4. Divide los siguientes polinomios y completa los espacios:

$$\frac{15x^3 + 5 - 3x^2}{3x^2 + 2}$$

COMPLETA Y ORDENA

$$\frac{15x^3 - 3x^2 + \quad x + \quad}{3x^2 + \quad x + \quad}$$

COLOCA LOS DATOS Y OPERA

$$Q(x) = \quad x -$$

$$R(x) = \quad x +$$