

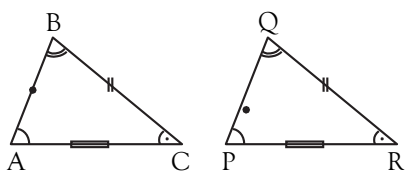


Geometría

CONGRUENCIA DE TRIANGULOS

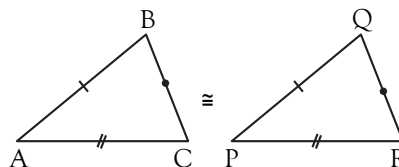
DEFINICIÓN

Dos triángulos son congruentes, si tienen sus tres lados congruentes y sus tres ángulos congruentes respectivamente.



$$\Rightarrow \triangle ABC = \triangle PQR$$

3. Caso (L.L.L.)

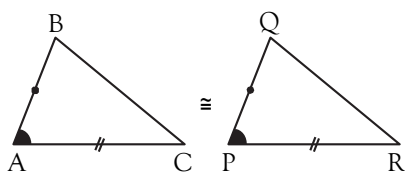


Observación

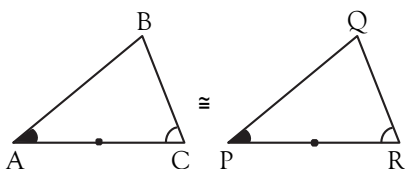
- En un problema dado, se podrá afirmar que dos triángulos son congruentes si tienen como mínimo tres elementos iguales, de los cuales uno de ellos debe ser un lado.

CASOS DE CONGRUENCIA EN TRIÁNGULOS

1. Caso (L.A.L.)

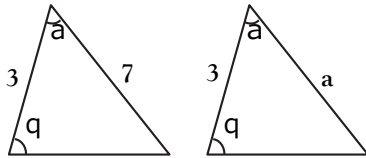


2. Caso (A.L.A.)



Resolviendo en clase

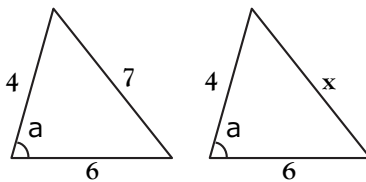
1 Calcula el valor de "a".



Resolución:

Rpta:

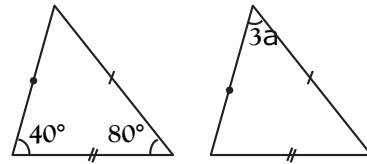
2 ¿Cuál es el valor de "x"?



Resolución:

Rpta:

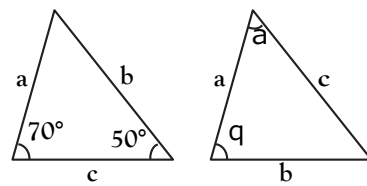
3 Halla el valor de "a".



Resolución:

Rpta:

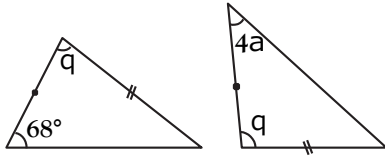
4 Calcula "a-q".



Resolución:

Rpta:

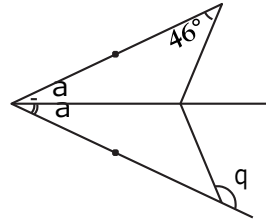
5 Calcula el valor de “a”.



Resolución:

Rpta:

6 Halla “q”.

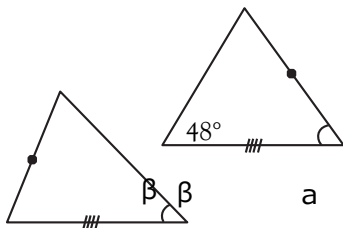


Resolución:

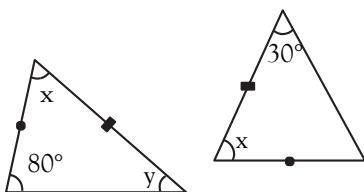
Rpta:

Ahora en tu cuaderno

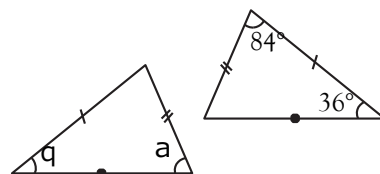
7. Halla “a”.



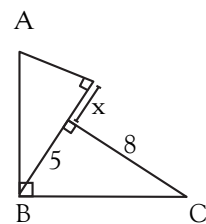
8. Calcula “x - y”.



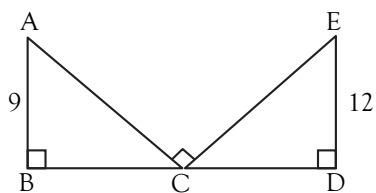
9. Calcula “a - q”.



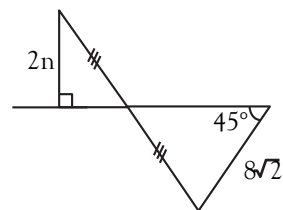
10. Halla “x” en la figura mostrada si $AB = BC$.



11. Halla BD si $AC = CE$

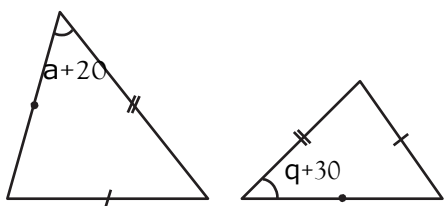


12. Calcula "n".



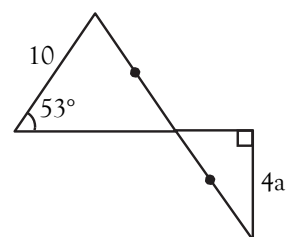
Para reforzar

1. Halla "a-q".



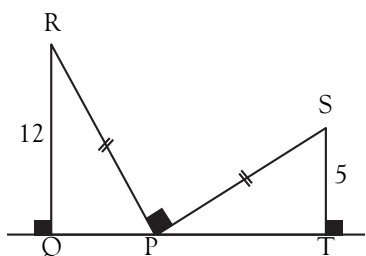
- a) 5° b) 7° c) 13°
d) 15° e) 18°

3. Halla "a".



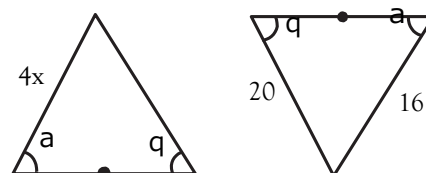
- a) 2 b) 1 c) 3
d) 6 e) 8

2. Halla QT.



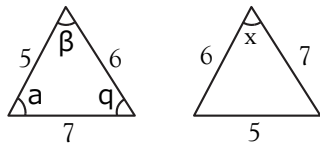
- a) 12 b) 14 c) 17
d) 19 e) 22

4. Calcula "x".



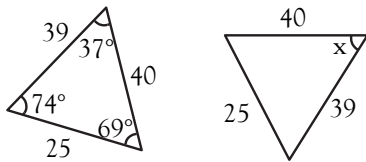
- a) 1 b) 2 c) 3
d) 4 e) 5

5. Calcula "x".



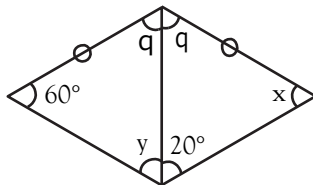
- a) a b) β c) q
 d) $a + \beta$ e) $q - \beta$

6. Calcula "x".



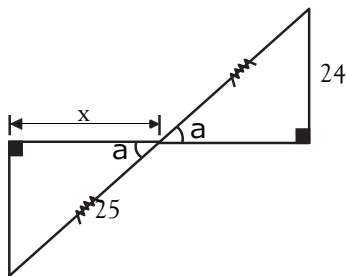
- a) 37° b) 74° c) 69°
 d) 111° e) 106°

7. Calcula "x - y".



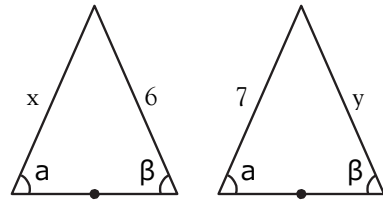
- a) 80° b) 60° c) 40°
 d) 20° e) 0°

8. Calcula "x".



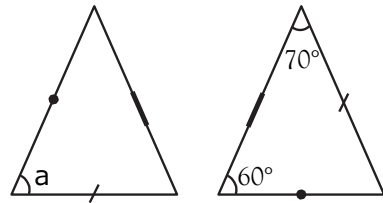
- a) 2 b) 4 c) 6 d) 7
 e) 9

9. Halla "x+y".



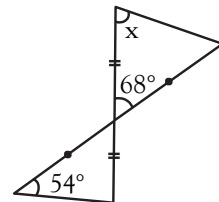
- a) 8 b) 9 c) 10
 d) 12 e) 13

10. Halla la medida de "a".



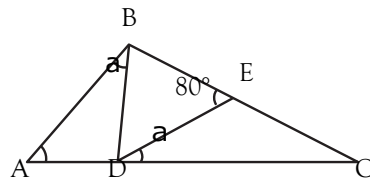
- a) 40° b) 50° c) 70°
 d) 80° e) 90°

11. Halla la medida de "x".



- a) 54° b) 44° c) 34°
 d) 24° e) 58°

12. De la figura: $AB=DC$; $DB=DE$. Halla "a".



- a) 20° b) 60° c) 40°
 d) 50° e) 30°