GEOMETRY

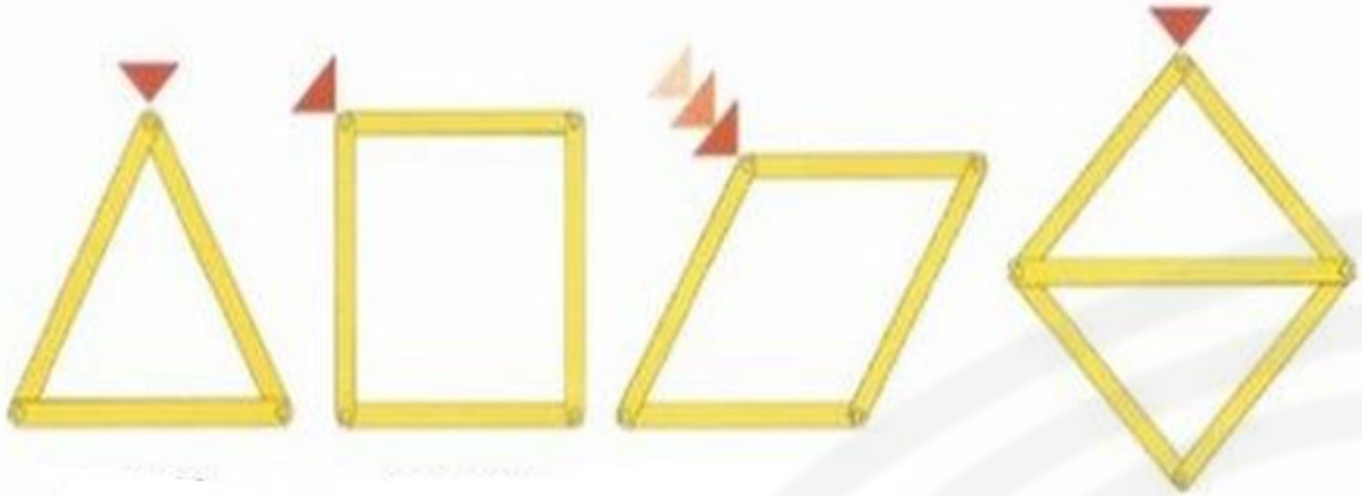
CHAPTER 6

1ro

SECONDARY

Clasificación de los triángulos

SACO OLIVEROS



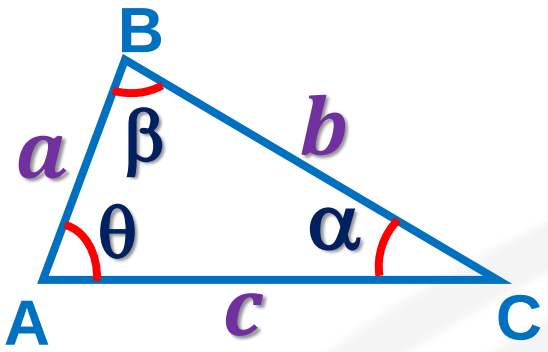
La forma en triángulo convierte en rígida a una estructura

CLASIFICACIÓN DE LOS TRIÁNGULOS

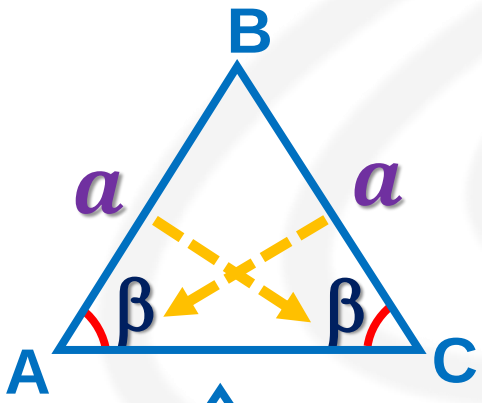
1. Por las longitudes de sus lados.

△ Escaleno

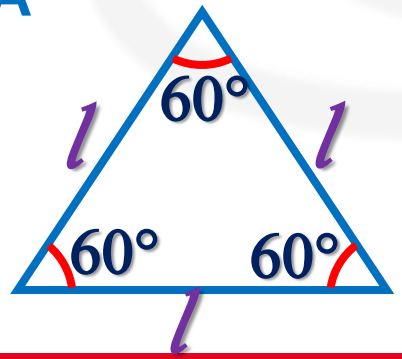
$a \neq b \neq c$



△ Isósceles

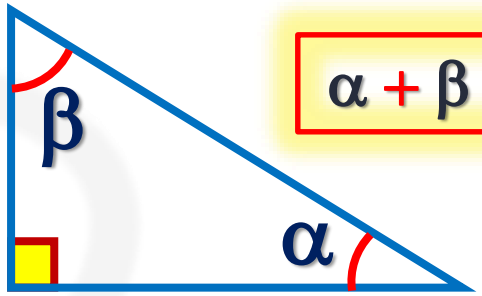


△ Equilátero



2. Por las medidas de sus ángulos.

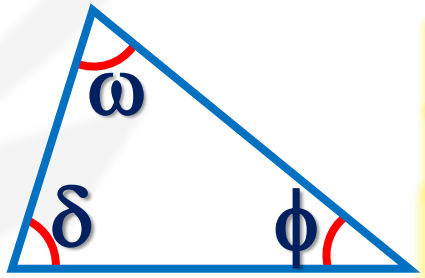
Rectángulo



$\alpha + \beta = 90°$

△ Oblicuángulo

Acutángulo

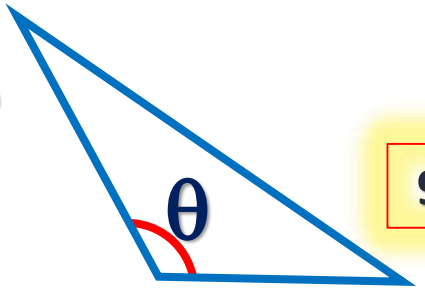


$0° < \omega < 90°$

$0° < \delta < 90°$

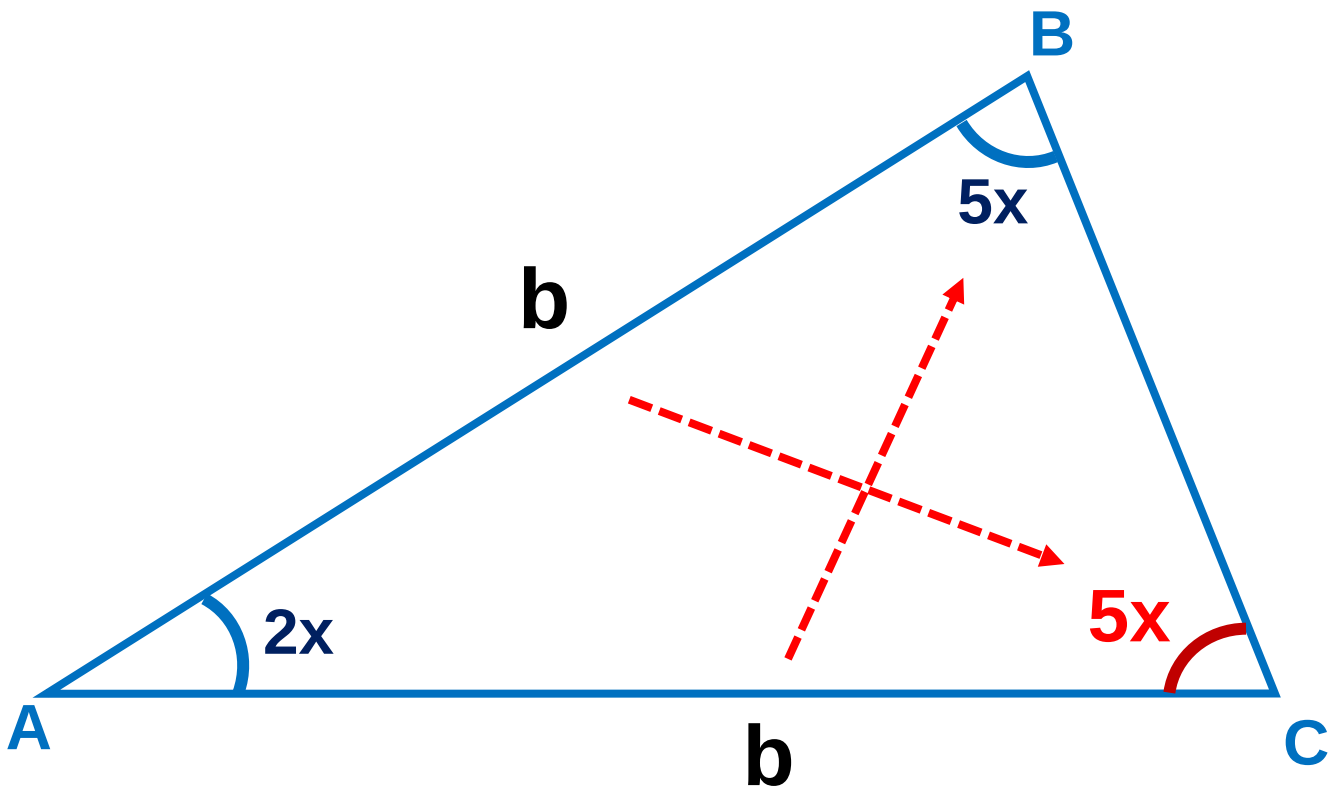
$0° < \phi < 90°$

Obtusángulo



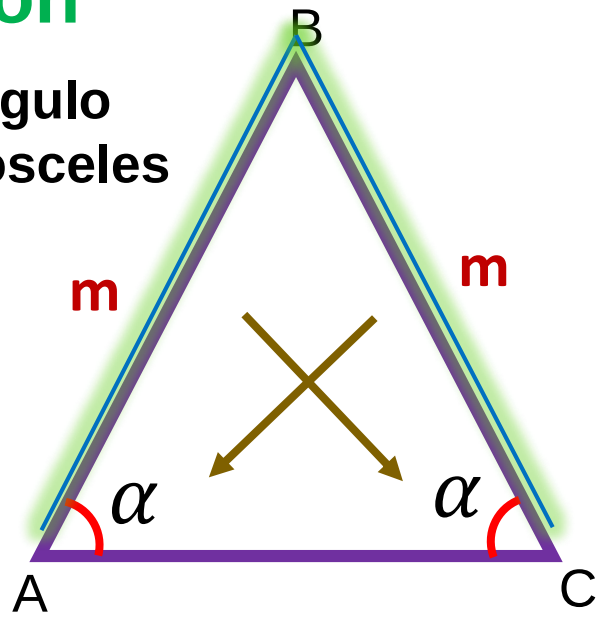
$90° < \theta < 180°$

1. En el gráfico, AB = AC. Halle el valor de x.



Resolución

Triángulo Isósceles



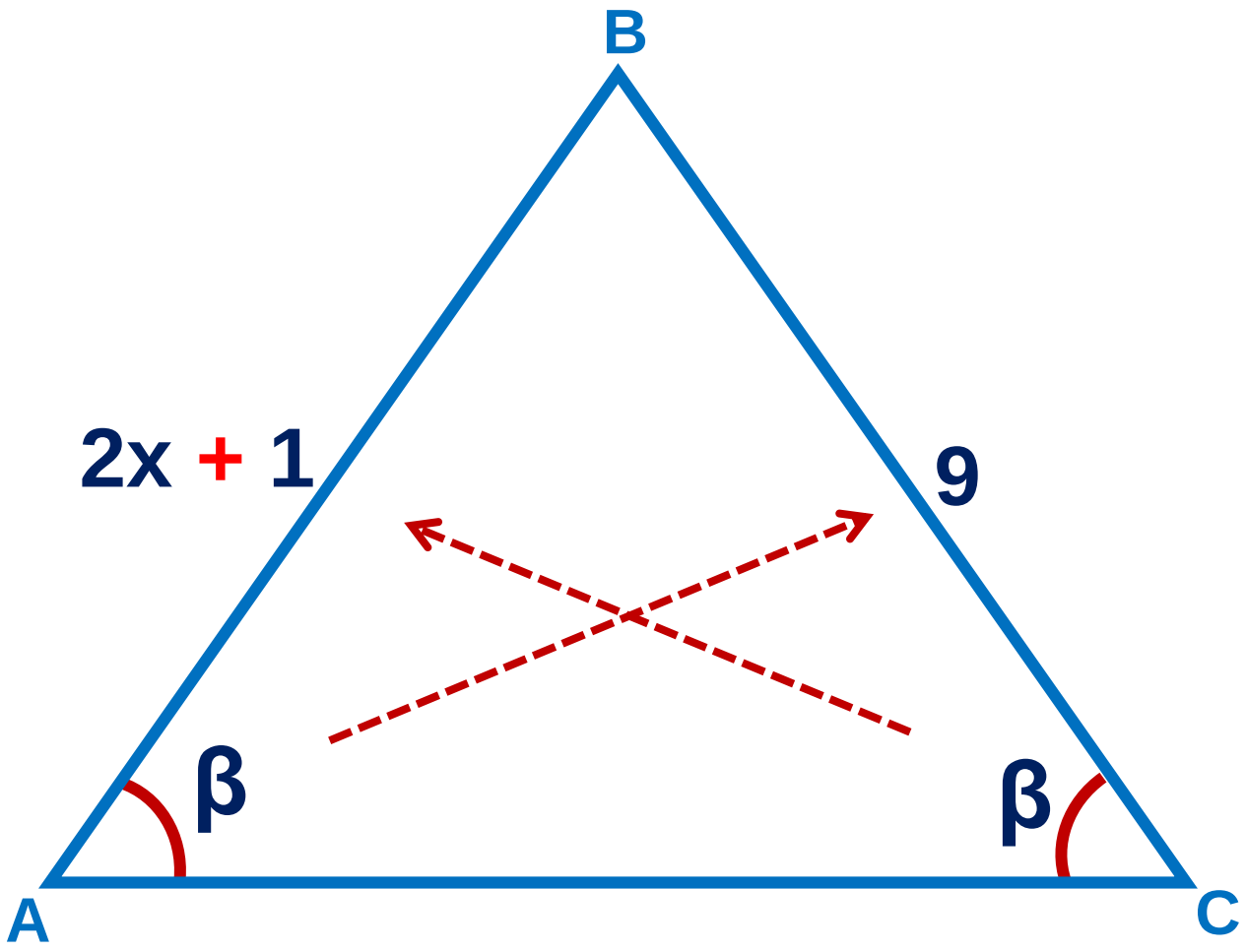
Piden: x

$$2x + 5x + 5x = 180^\circ$$

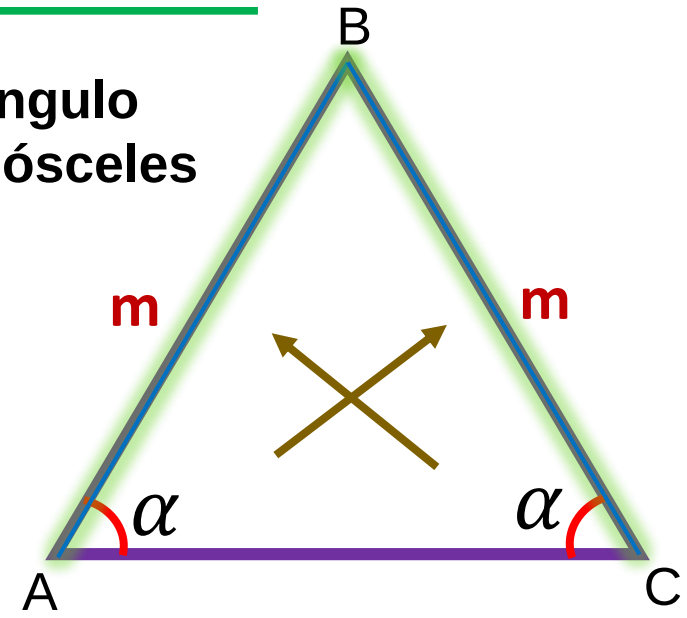
$$12x = 180^\circ$$

$$x = 15^\circ$$

2. Halle el valor de x.



Resolución



Piden: x

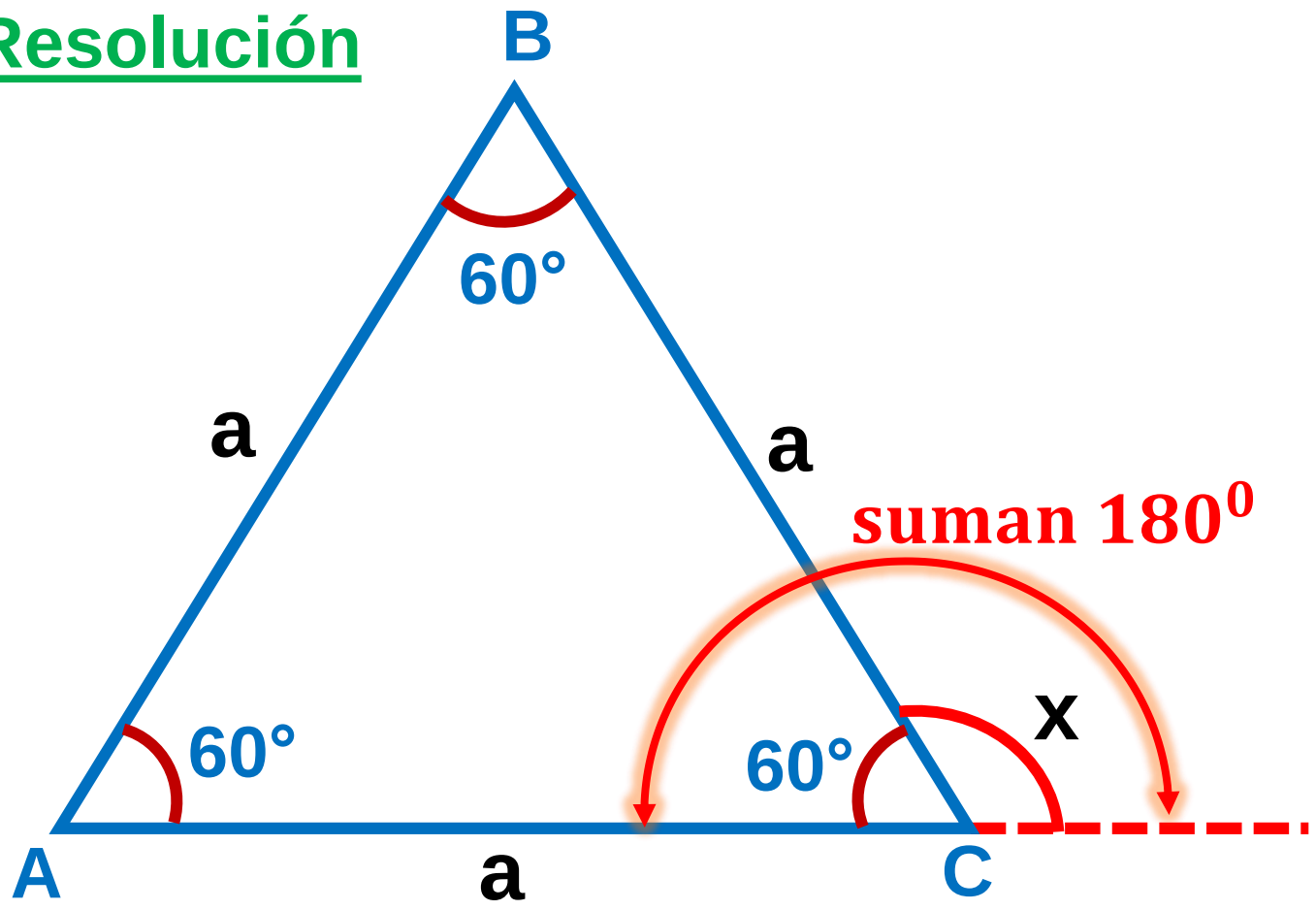
$$2x + 1 = 9$$

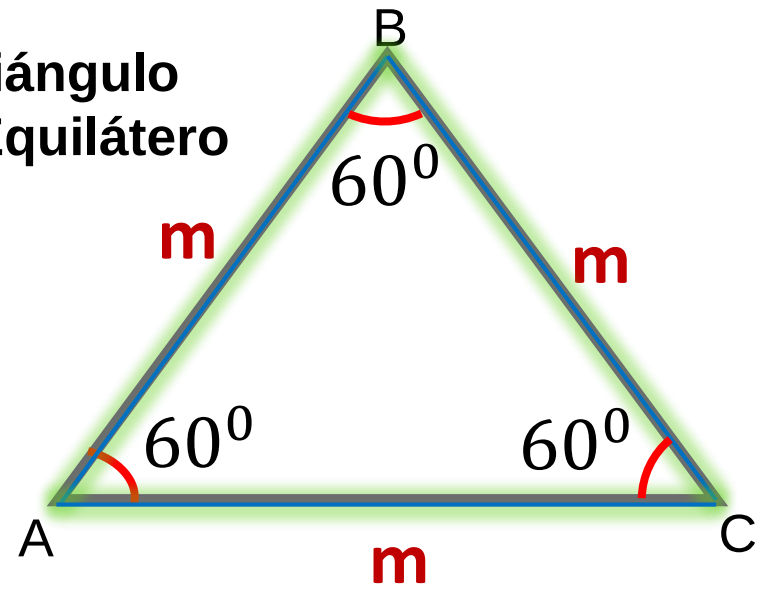
$$2x = 8$$

$$\boxed{x = 4}$$

3. Se tiene un triángulo equilátero ABC, donde el ángulo exterior de C mide x. Halle el valor de x.

Resolución





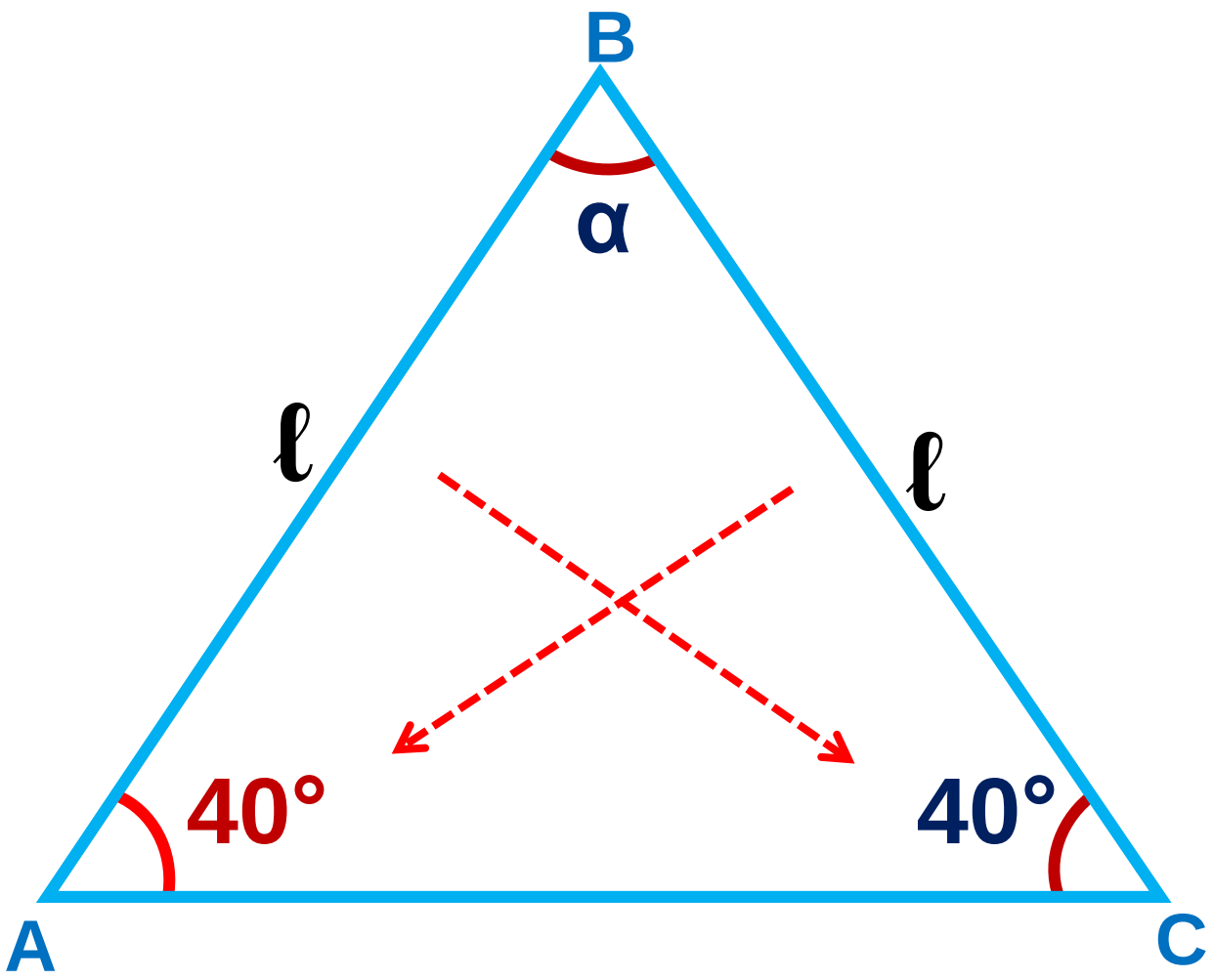
Piden: x

En el vértice C.

$$x + 60° = 180°$$

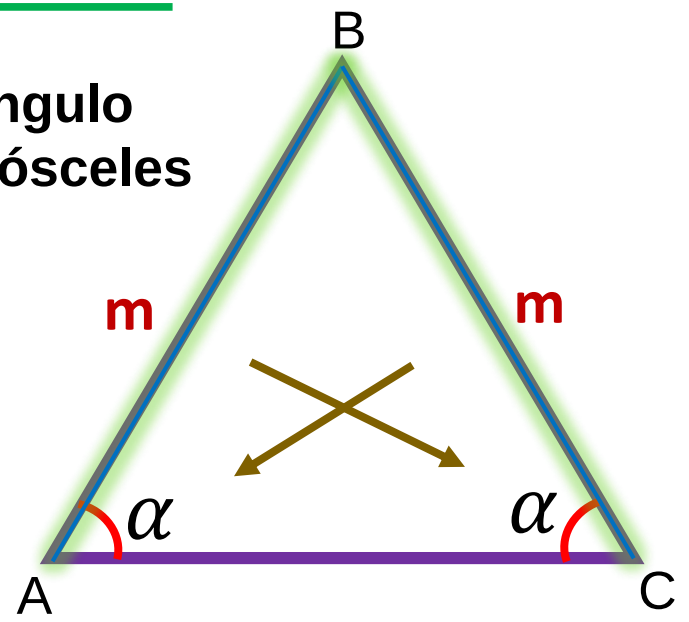
$$x = 120°$$

4. Halle el valor de α .



Resolución

Triángulo Isósceles



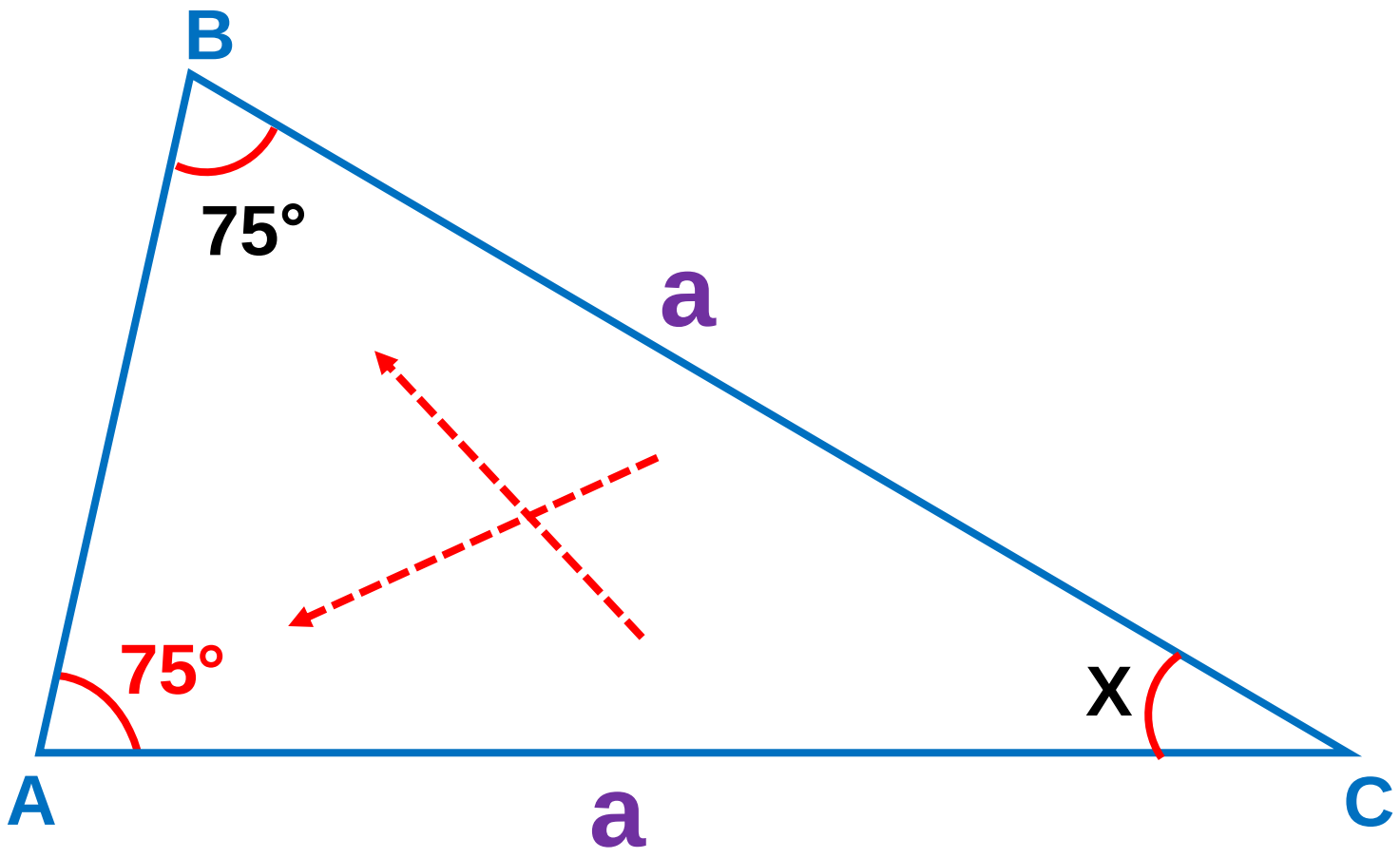
Piden: α

$$\alpha + 40° + 40° = 180°$$

$$\alpha + 80° = 180°$$

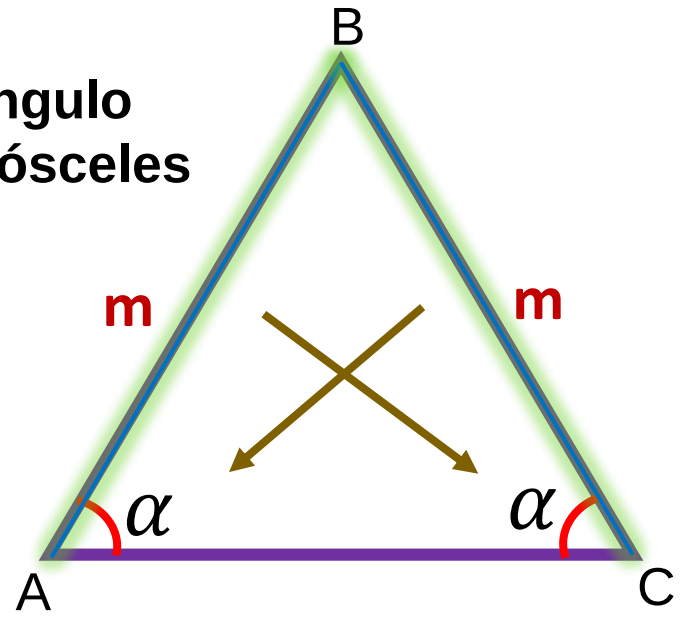
$$\alpha = 100°$$

5. Halle el valor de x.



Resolución

Triángulo Isósceles



Piden: x

$$x + 75^\circ + 75^\circ = 180^\circ$$

$$x + 150^\circ = 180^\circ$$

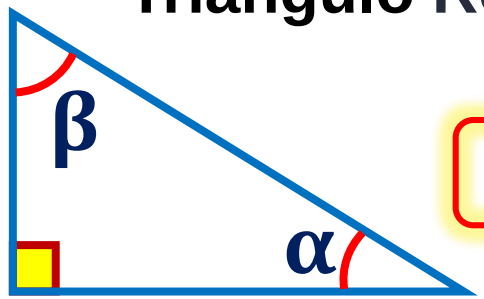
$$x = 30^\circ$$

6. Se muestra un escuadra. Halle el valor de β.

Resolución

Piden: β

Triángulo Rectángulo

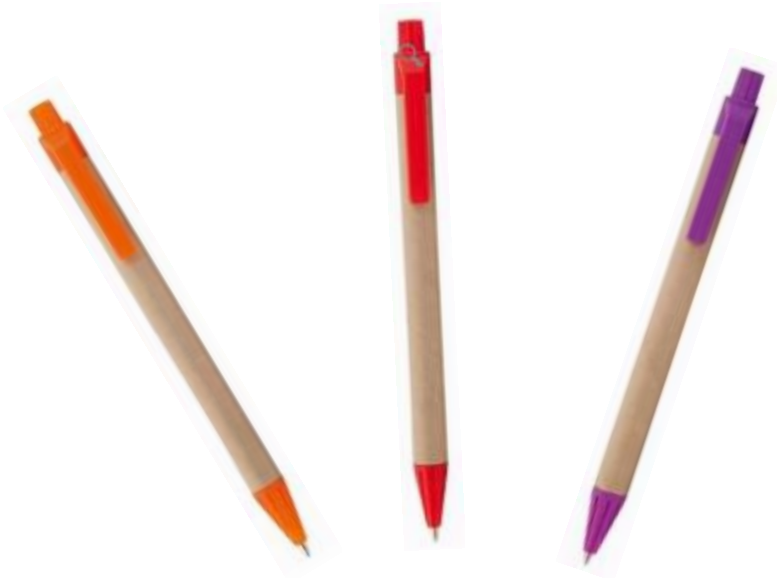


$$\alpha + \beta = 90°$$

$$\beta + 30° = 90°$$

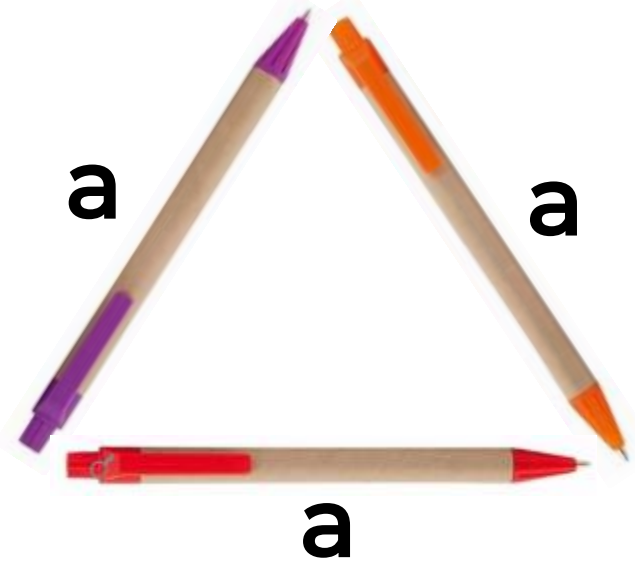
$$\beta = 60°$$

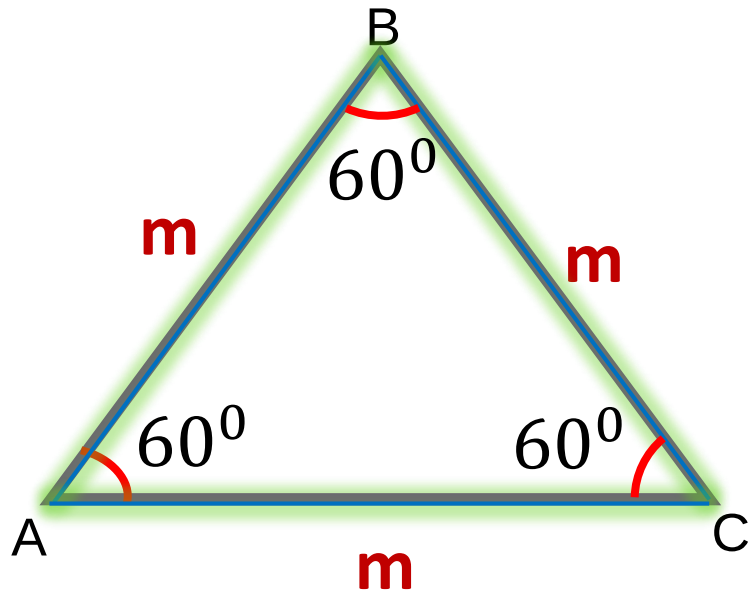
7. Tres alumnos con un lapicero cada uno (de la misma marca y modelo) unen sus lapiceros por los extremos. ¿Qué clase de triángulo formarán sus lapiceros?



LAPICEROS

Resolución





Triángulo equilátero