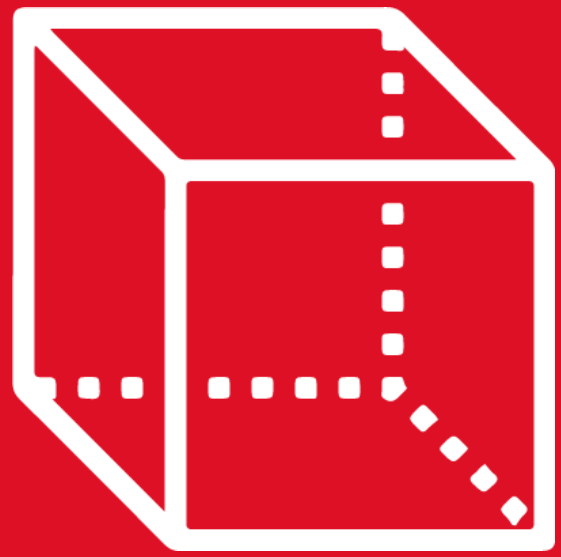
GEOMETRÍA

Capítulo 7

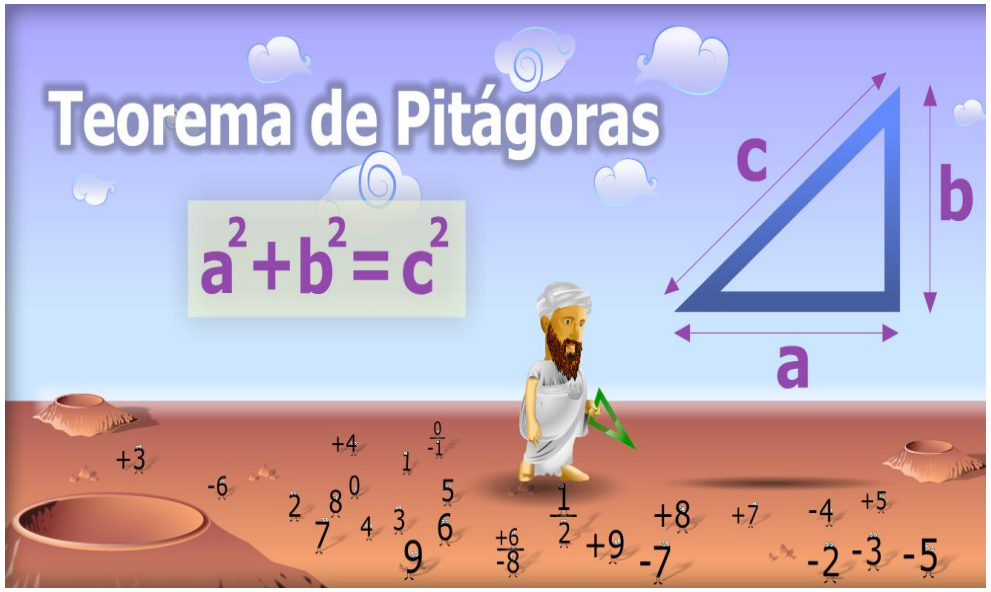


3th

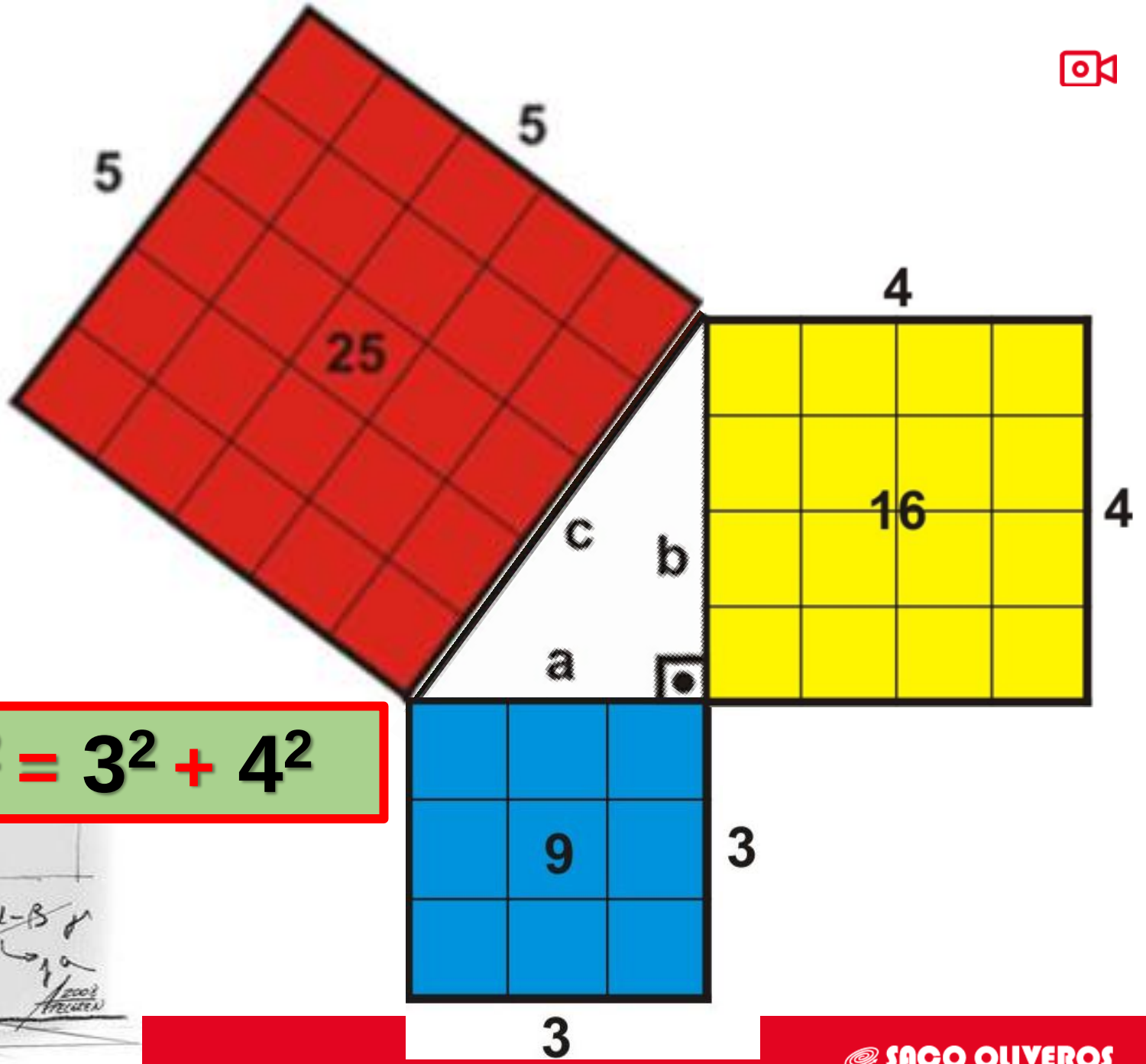
SECONDARY

TRIÁNGULOS RECTÁNGULOS NOTABLES

SACO OLIVEROS


Teorema de Pitágoras
$a^2+b^2=c^2$
c
b
a

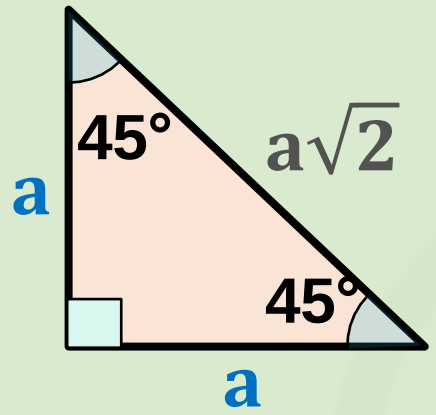

ME LIMPIAS TODO PITÁGORAS


5
5
25
4
4
16
c
b
a
3
9
3

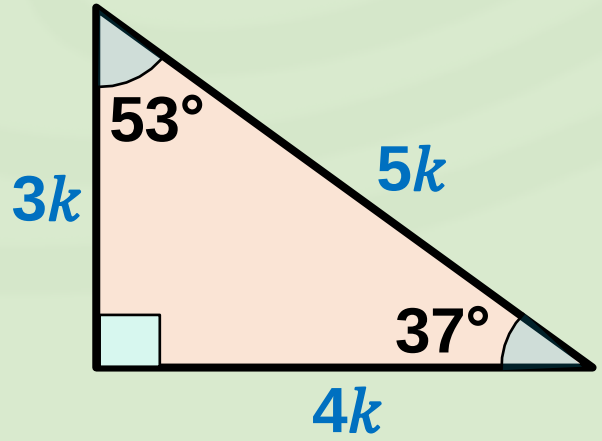
$$5^2 = 3^2 + 4^2$$

TRIÁNGULOS RECTÁNGULOS NOTABLES

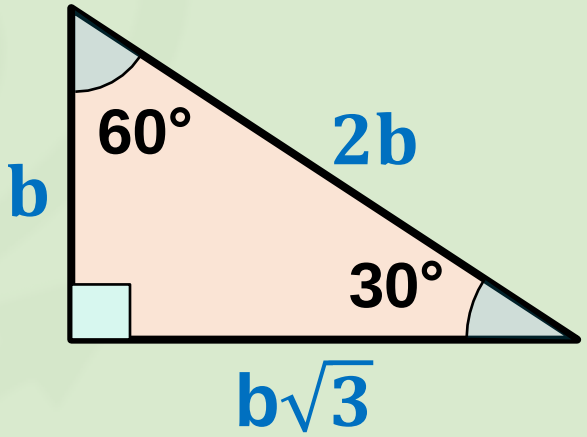
Notable de 45° y 45°



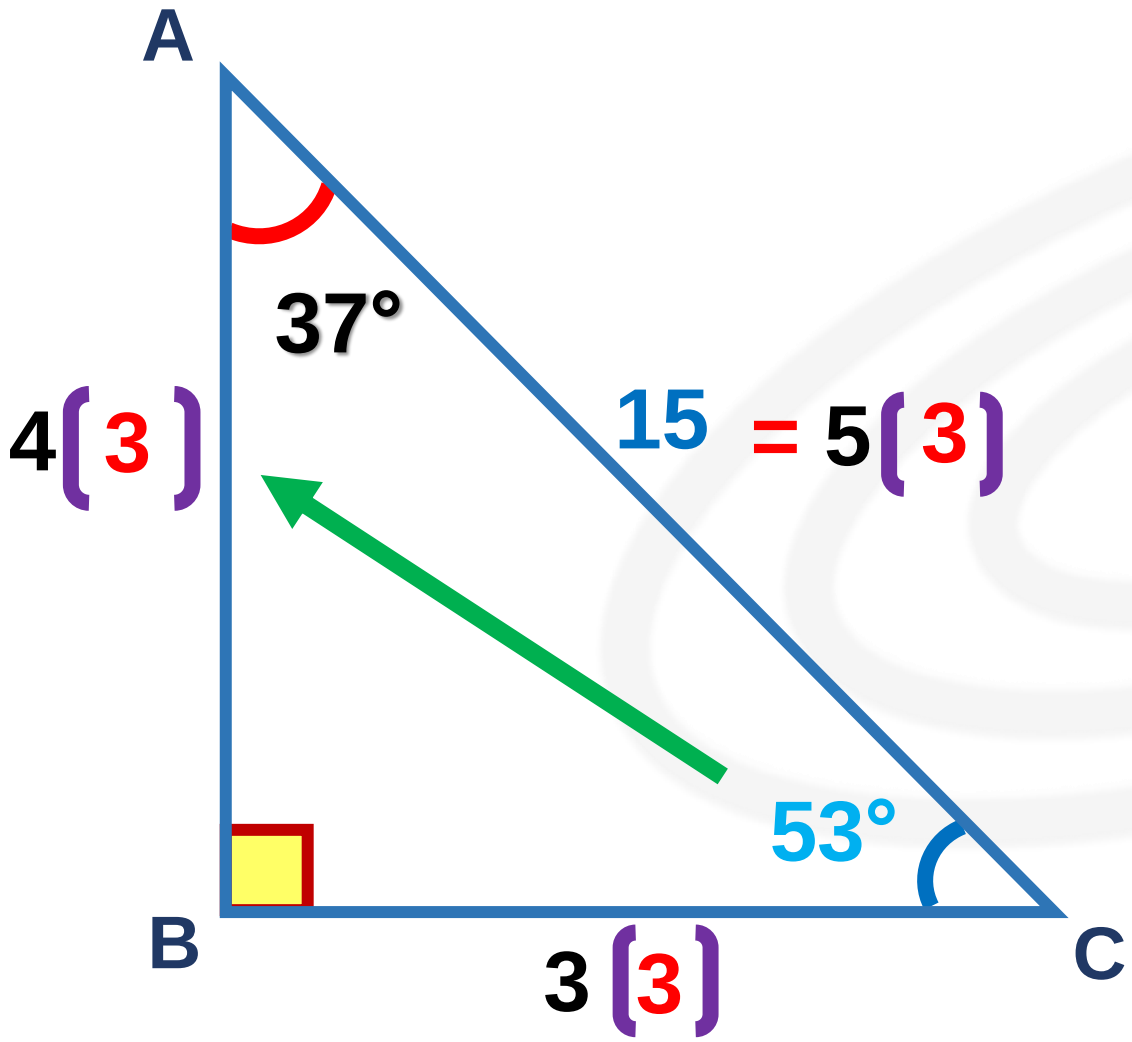
Notable de 37° y 53°



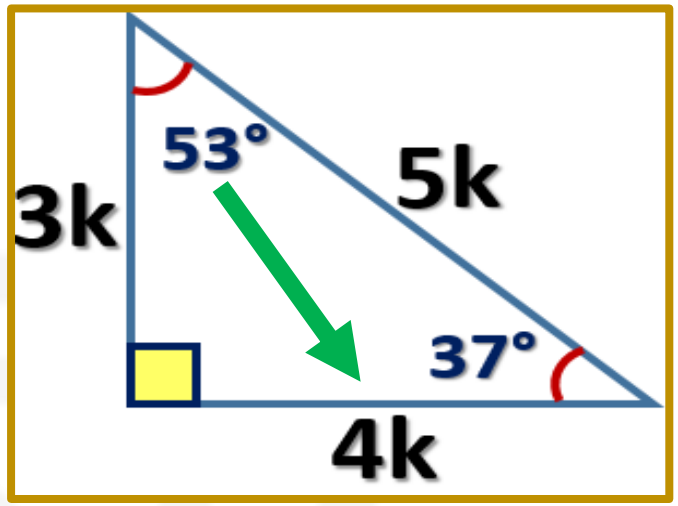
Notable de 30° y 60°



1. Halle AB + BC.



Resolución:



$$AB = 4(3) = 12$$

$$BC = 3(3) = 9$$

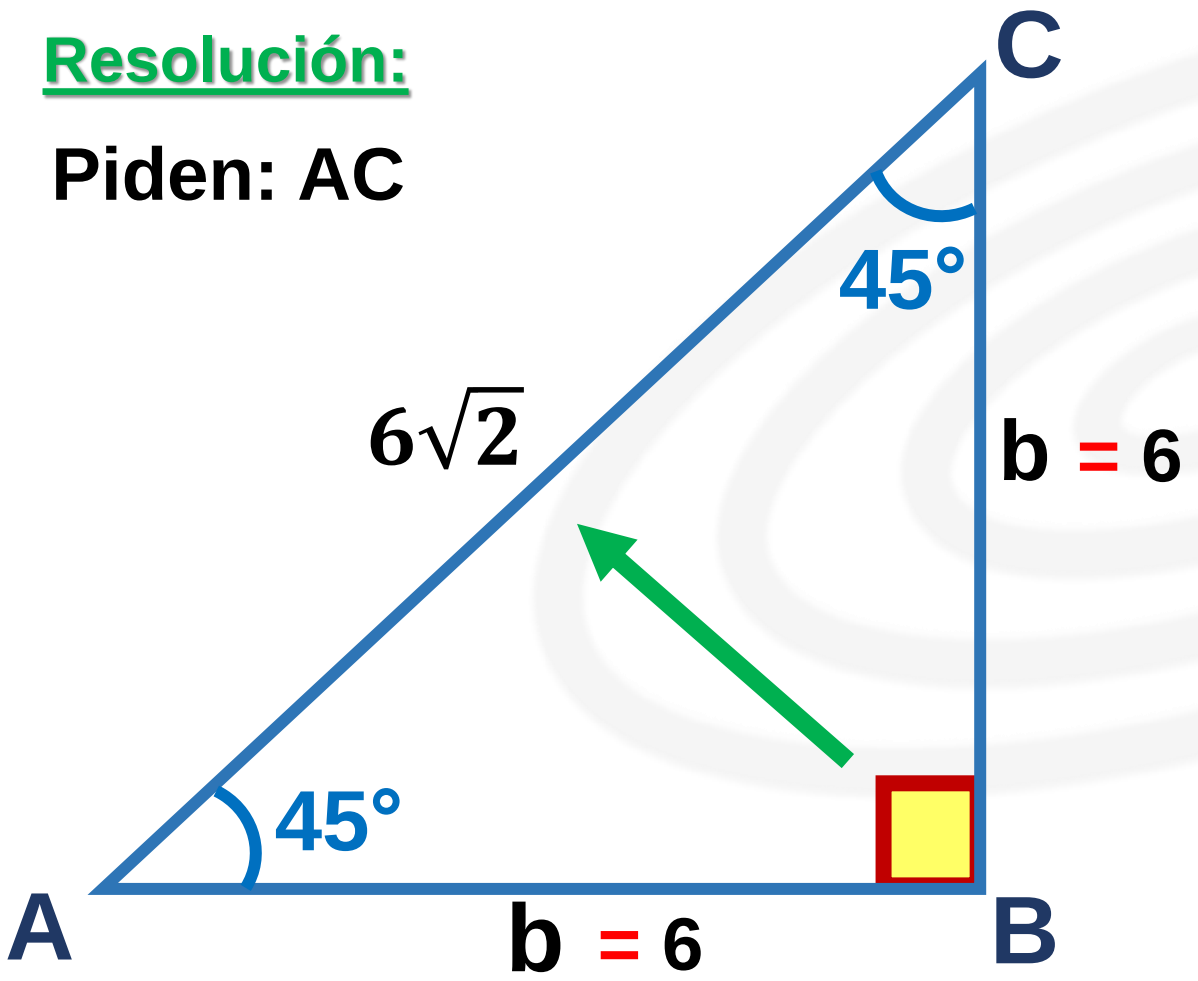
$$AB + BC = 12 + 9$$

$$\boxed{AB + BC = 21}$$

2. Halle la longitud de la hipotenusa de un triángulo rectángulo isósceles, si la suma de las longitudes de los catetos es 12cm.

Resolución:

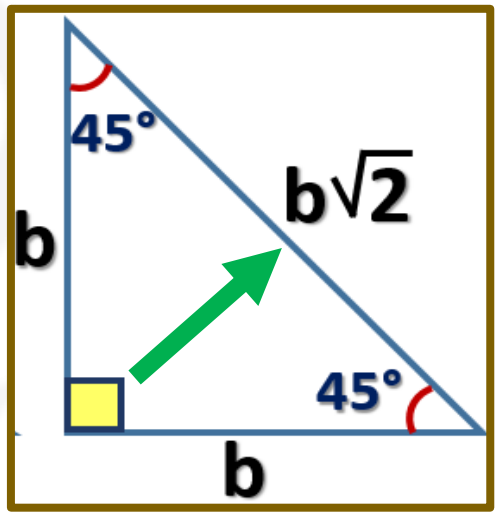
Piden: AC



Por dato:

$b + b = 12$

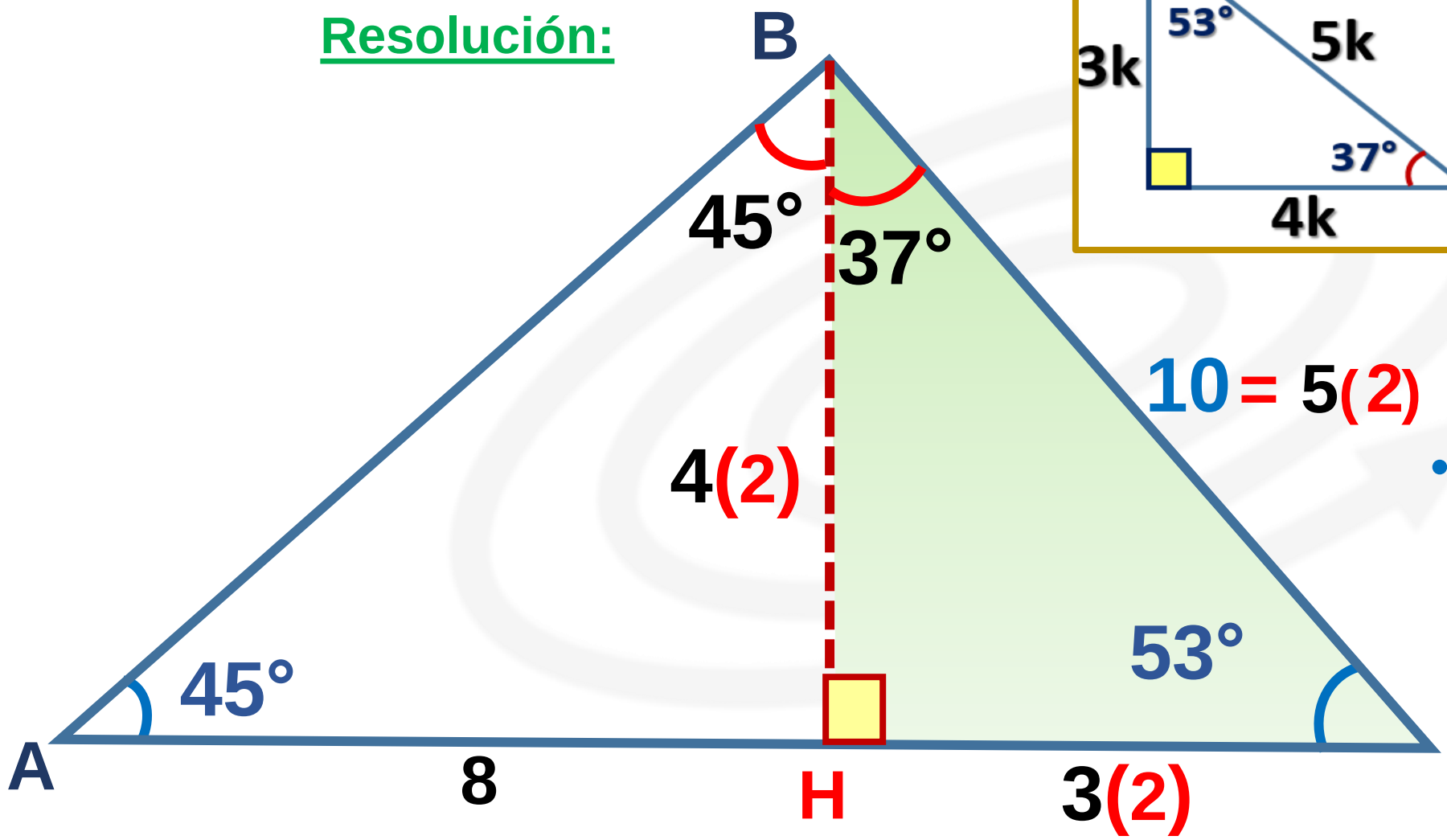
$b = 6$

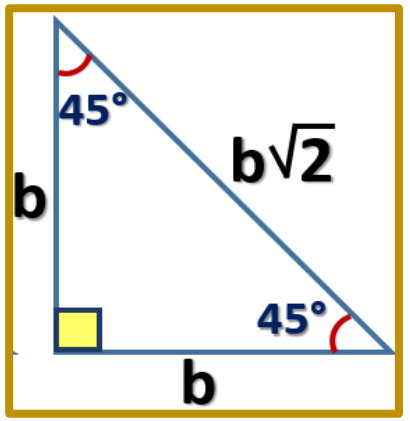


$$AC = 6\sqrt{2}\ m$$

3. Halle AC.

Resolución:



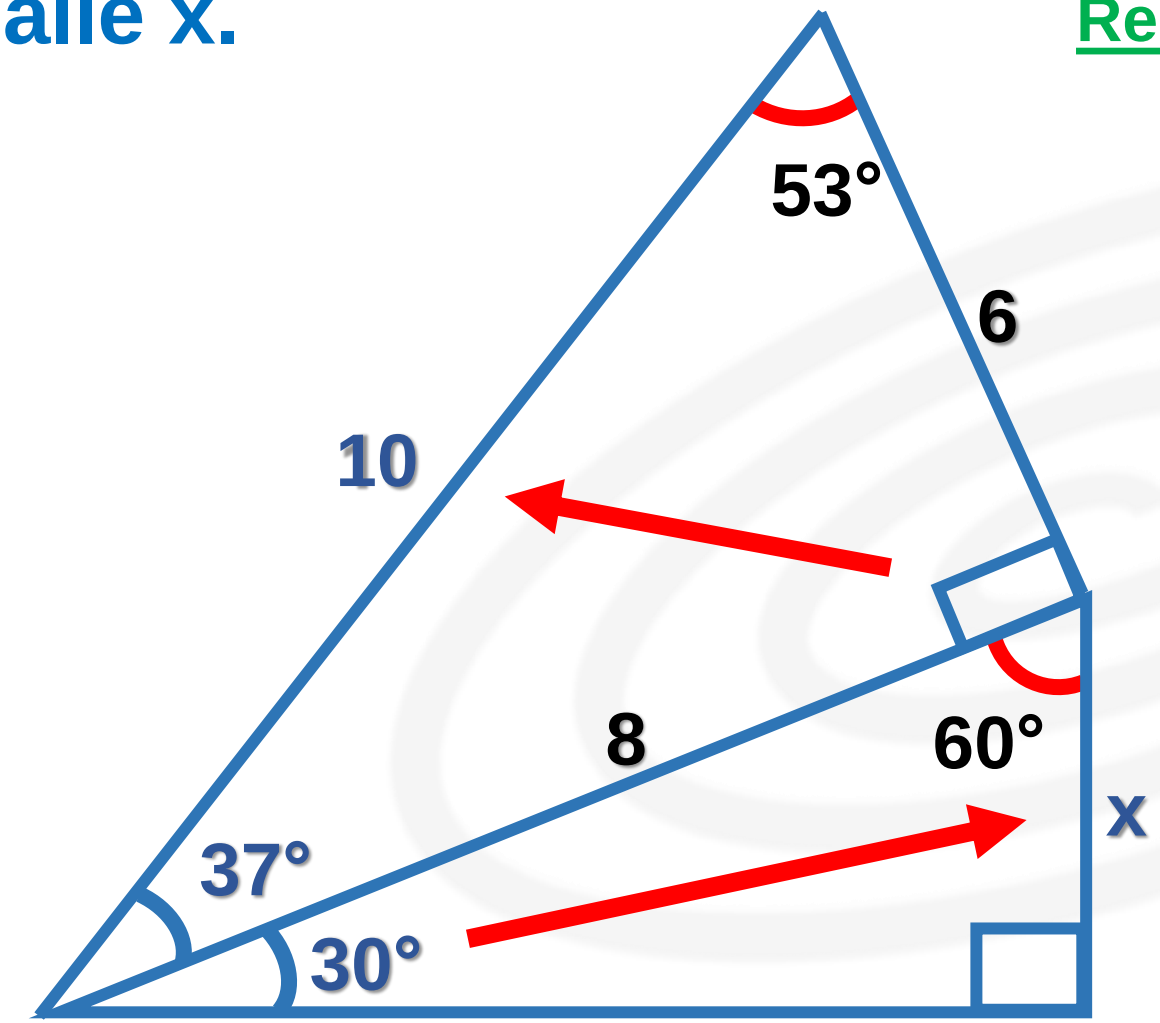


- **Nos piden**

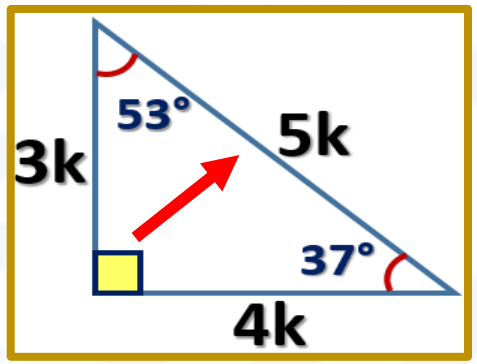
$$AC = 8 + 6$$

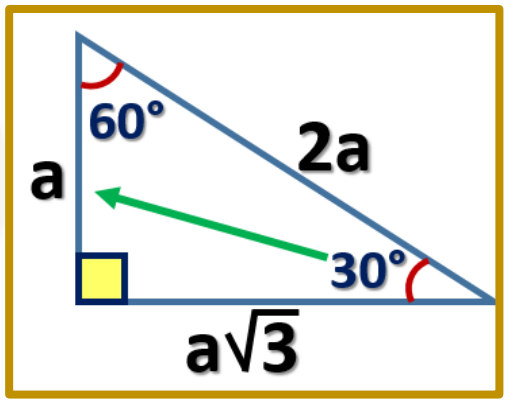
$$AC = 14$$

4. Halle x.



Resolución:

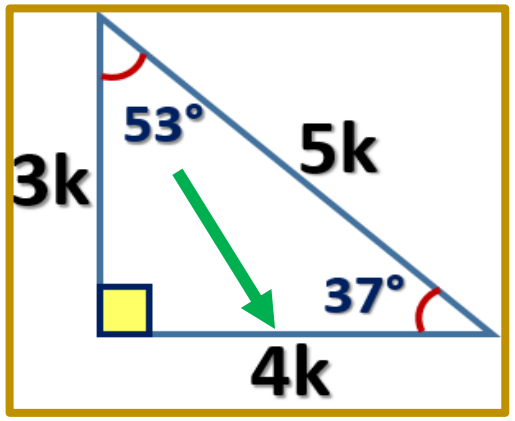




$$x = \frac{(8)}{2}$$

$$x = 4$$

5. Halle AB.



Resolución:

$$AB + BH = AH$$

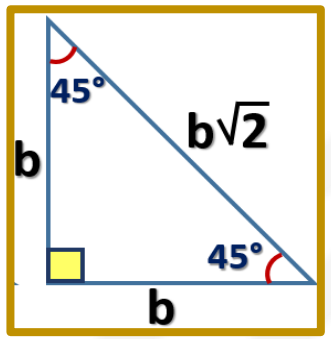
$$AB + 3 = 4$$

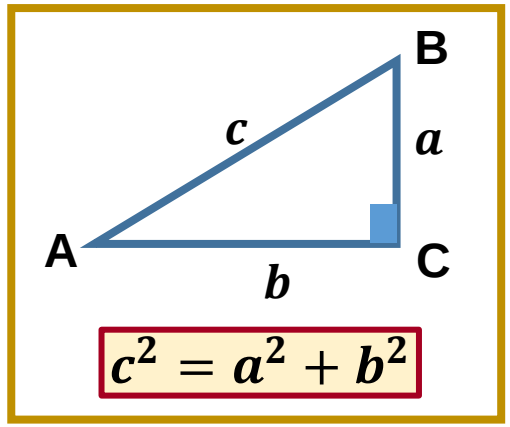
$$\boxed{AB = 1}$$

6. José viaja en su automóvil desplazándose por una pista horizontal, tal como se muestra en el grafico. Según ello, halle la distancia que recorrerá el vehículo desde A hasta B.

Resolución:

Piden: AB





AH = 120

AB = 130

170m

En ∆BHA: Teorema de Pitágoras

$$(AB)^2 = 50^2 + 120^2$$

AB = 130 m

7. Se instala una cuerda desde el punto A hasta el punto mas alto de un edificio (punto B). Determine la longitud de la altura del edificio (h).

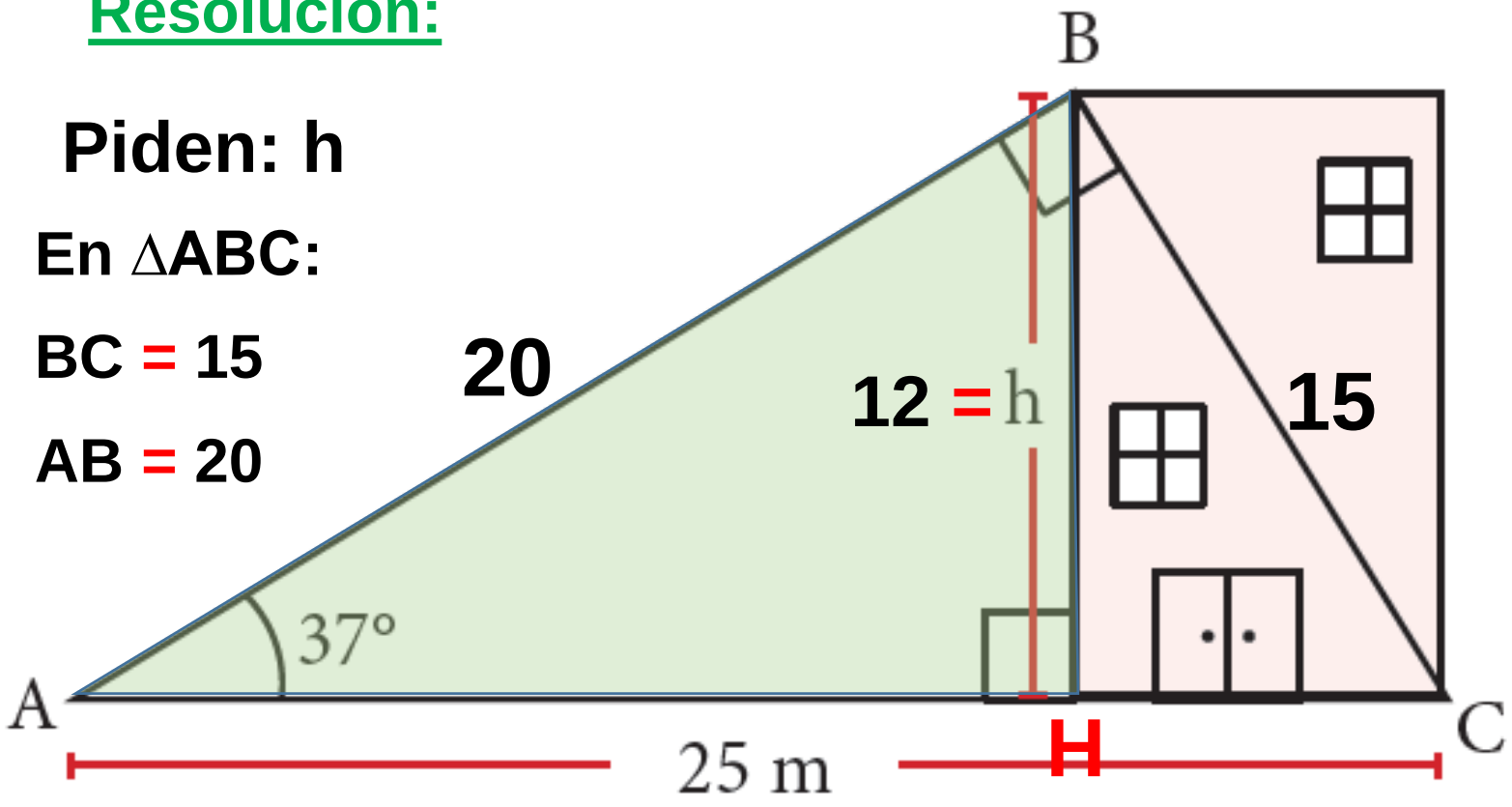
Resolución:

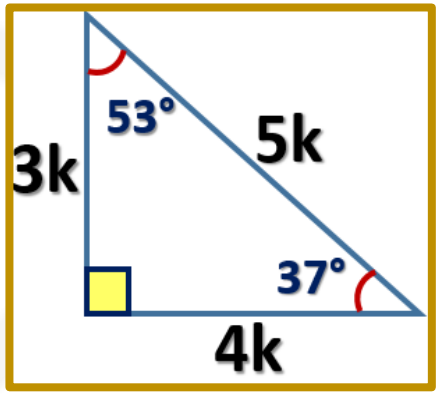
Piden: h

En ∆ABC:

BC = 15

AB = 20





En ∆AHB:

BH = 12

h = 12 m