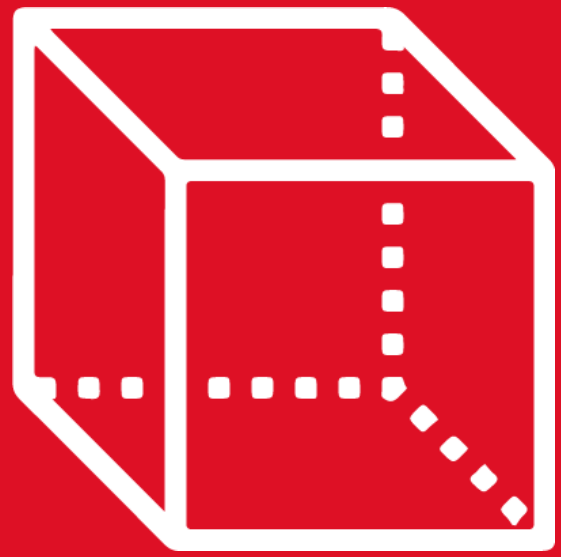
GEOMETRÍA

Capítulo 7

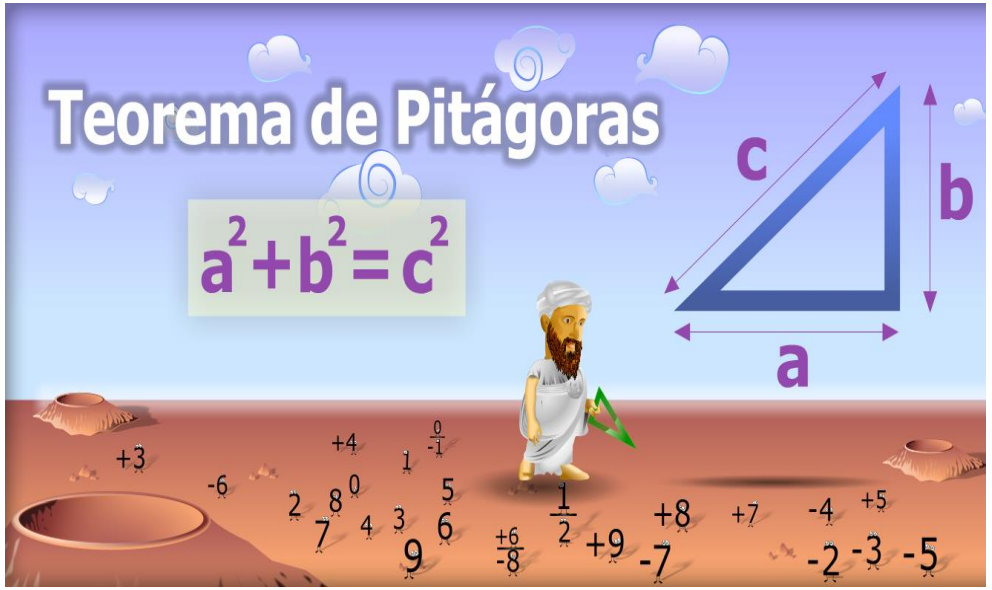
Sesión 1



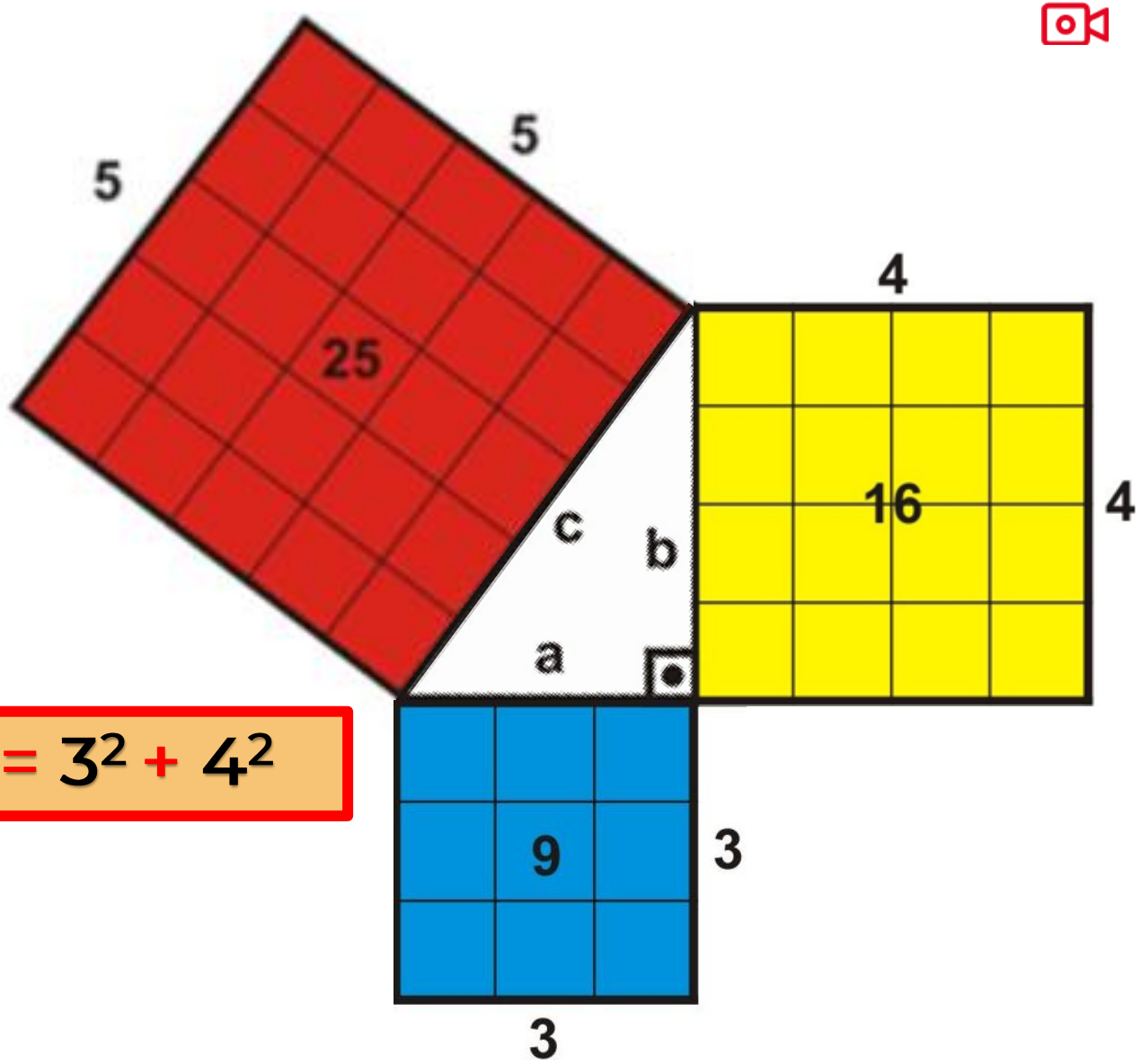
2th
SECONDARY

TRIÁNGULOS RECTANGULOS NOTABLES

SACO OLIVEROS

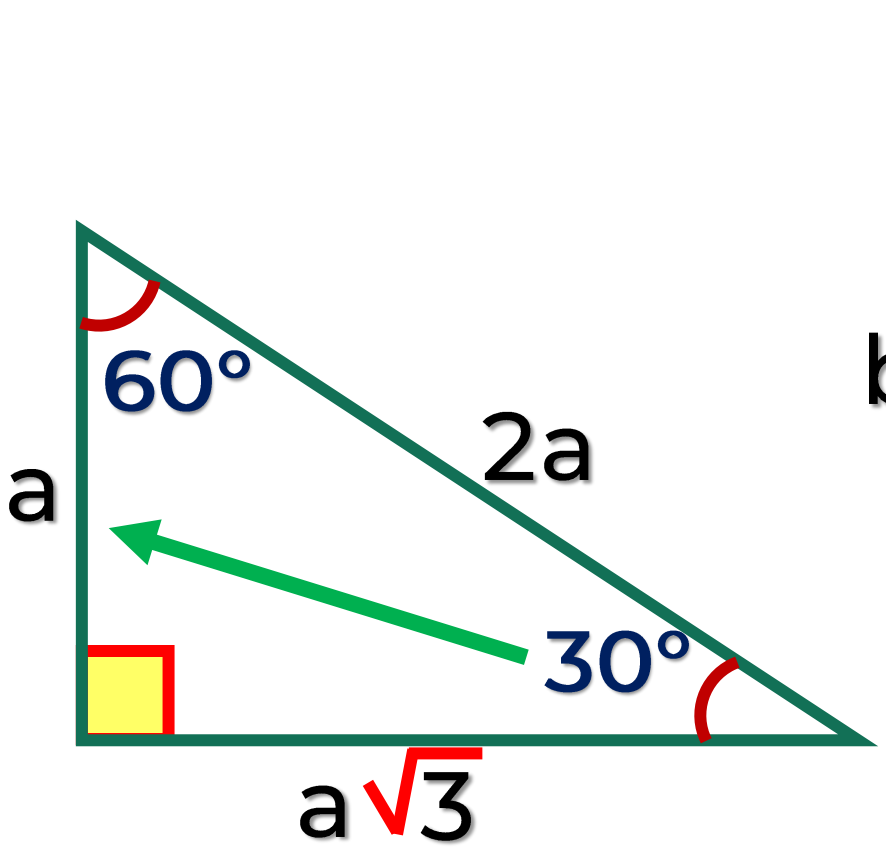

Teorema de Pitágoras
$a^2+b^2=c^2$
c
b
a

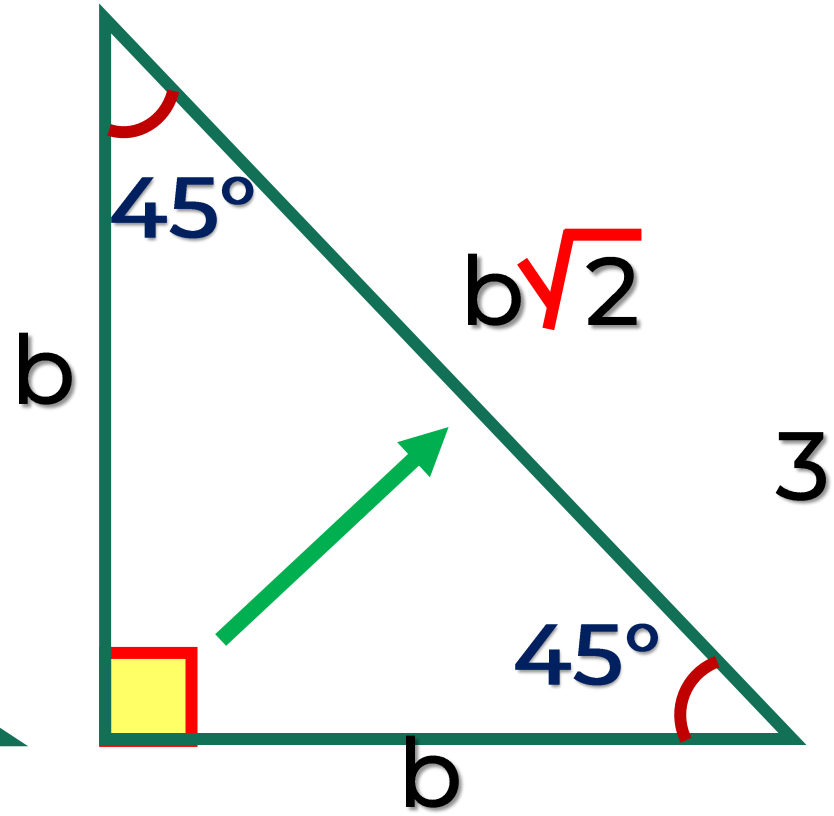

ME LIMPIAS TODO PITÁGORAS

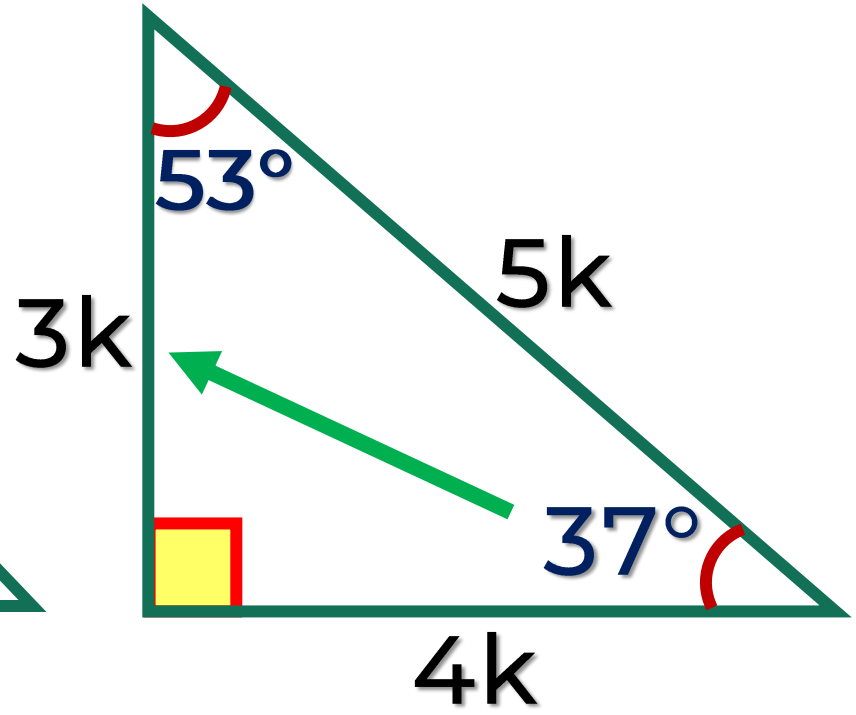

5
5
25
4
4
16
c
b
a
3
9
3

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

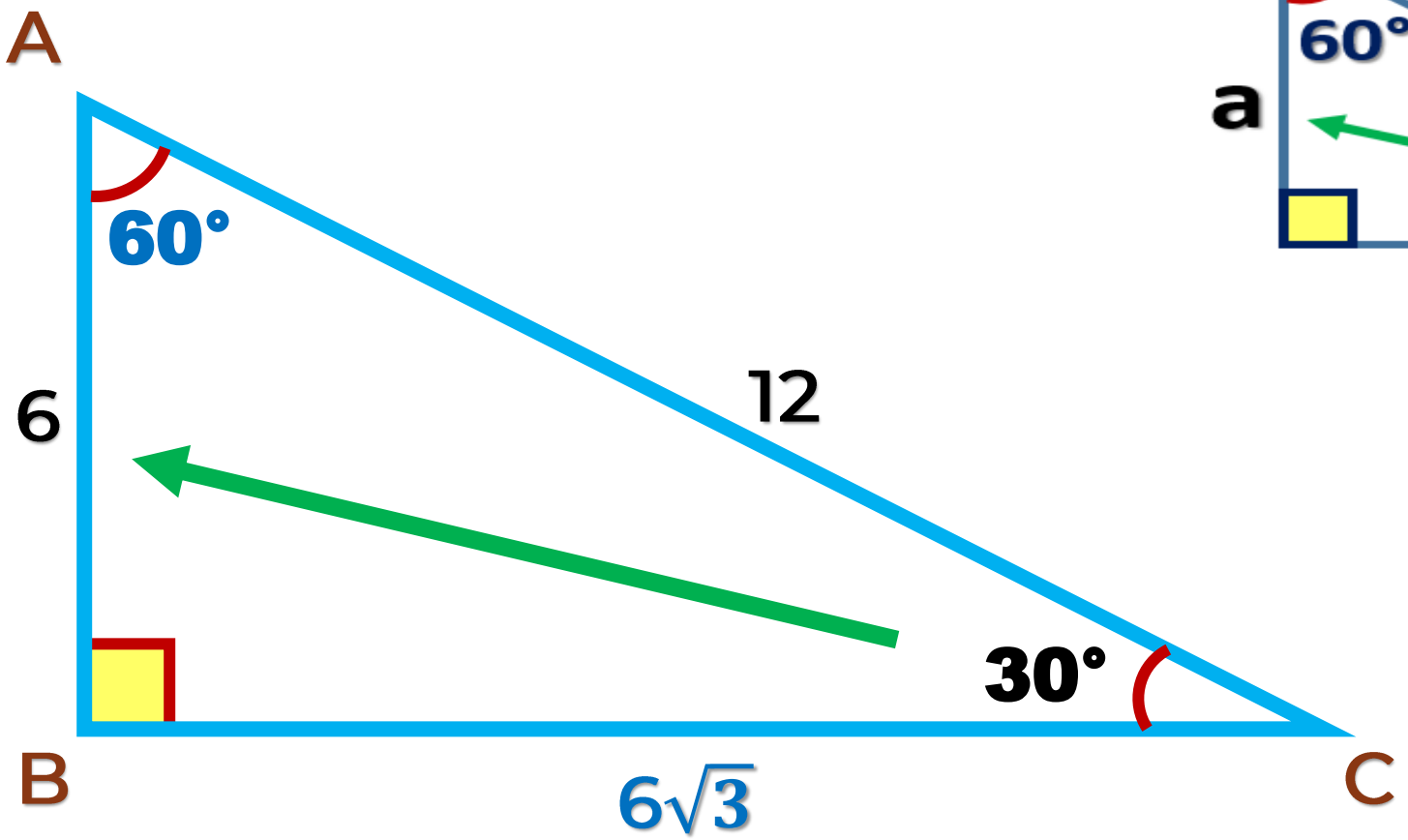
RIÁNGULOS RECTÁNGULOS NOTABLE

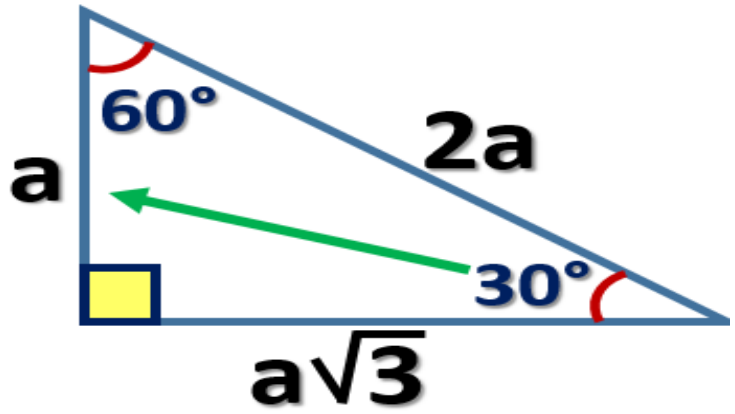






1. Se tiene un triángulo ABC, recto en B, BC = $6\sqrt{3}$ m y m<BAC = 60°, halle AC.

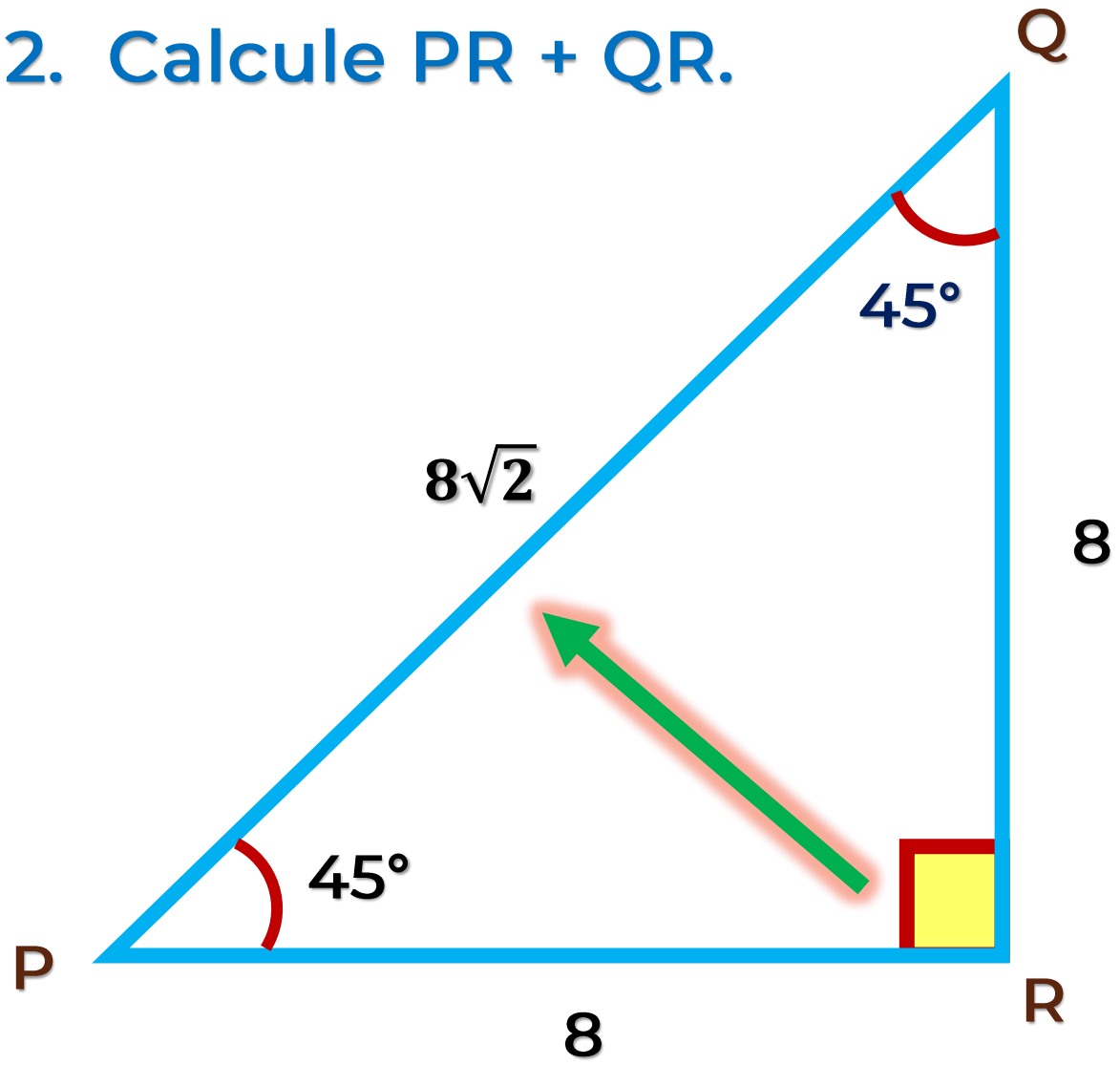


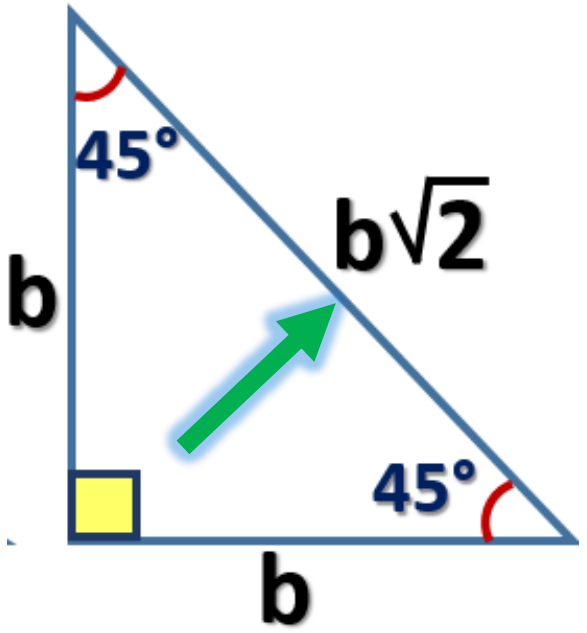


AC = 2 (6)

AC = 12

2. Calcule PR + QR.



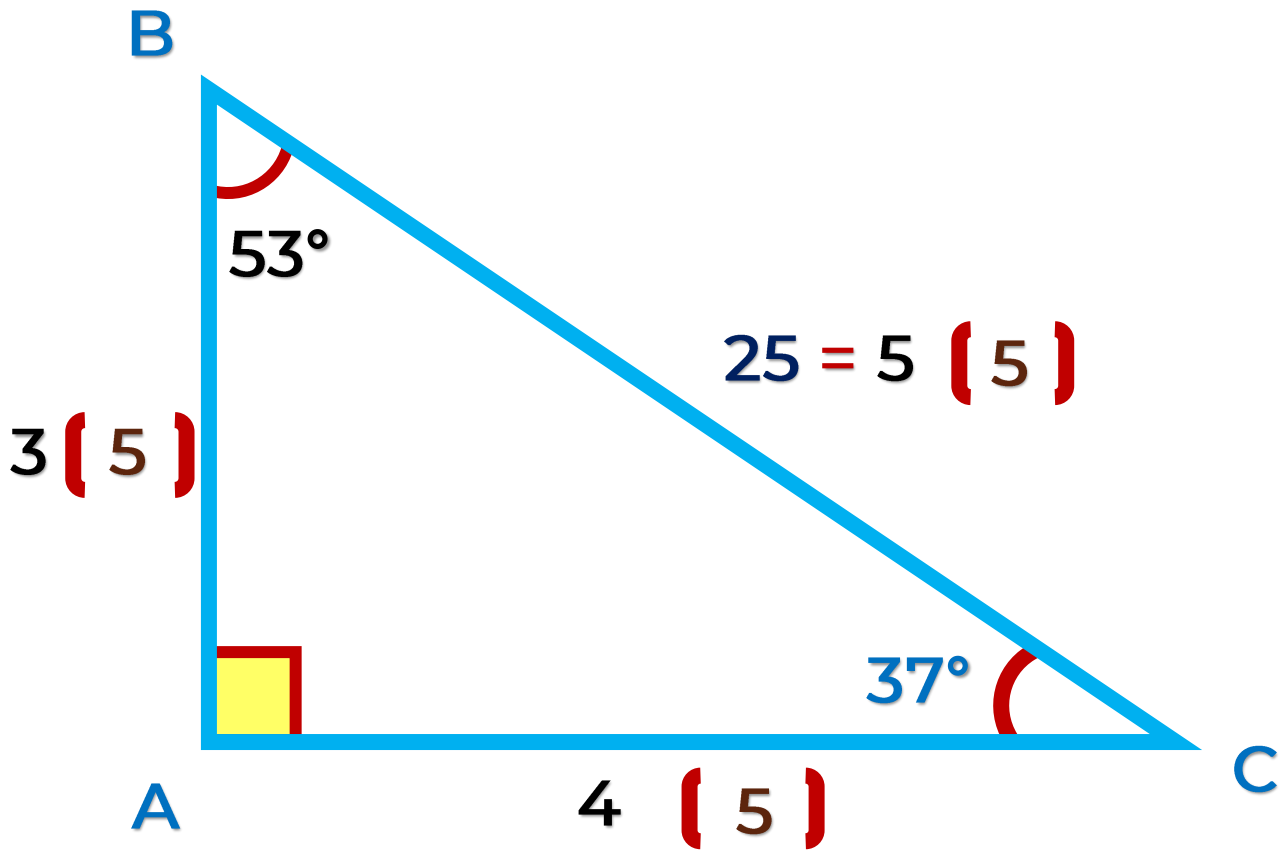


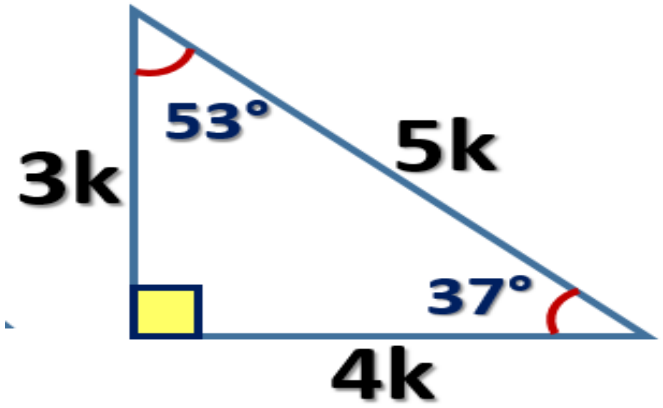
Nos piden

$PR + QR = 8 + 8$

$PR + QR = 16$

3. La hipotenusa de un triángulo rectángulo mide 25 y un ángulo agudo mide 37°. Halle la longitud del mayor cateto.

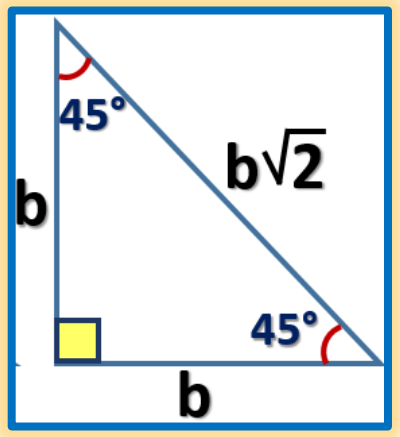


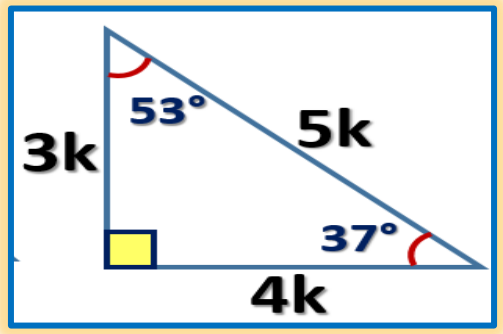


AC = 4 (5)

AC = 20

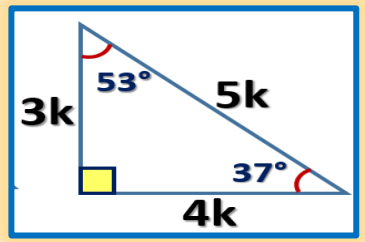
4. Halle AC.

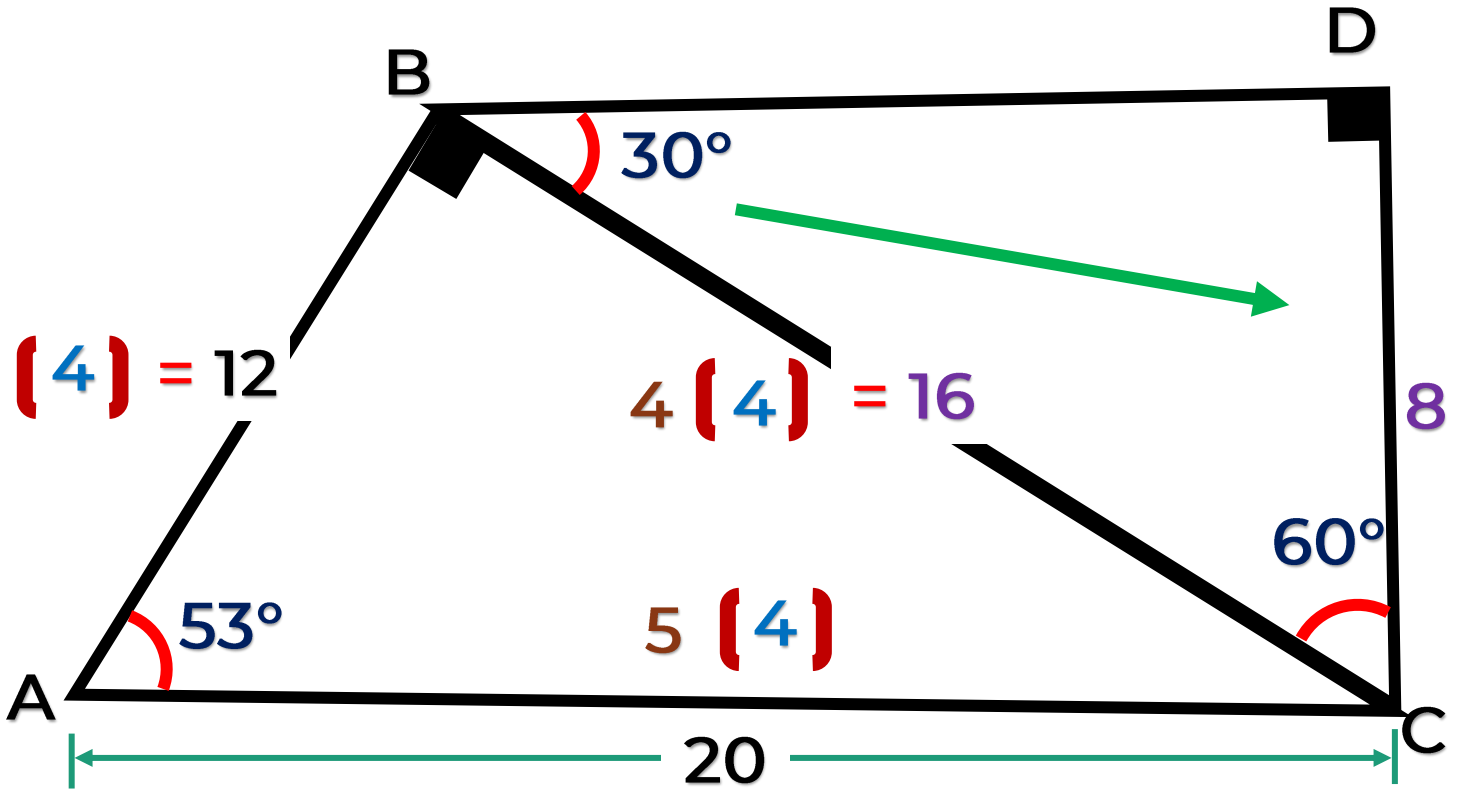


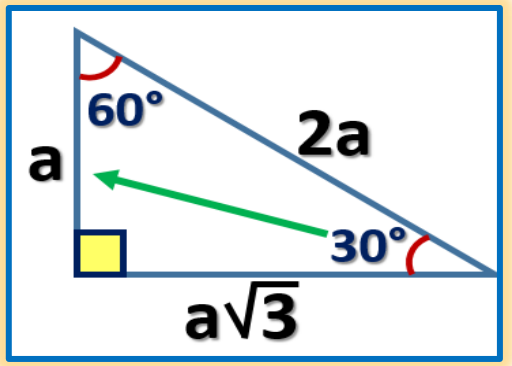


AC = 10

5. Se tienen los triángulos ABC, recto en B, y BCD, recto en D, D exterior relativo a BC. Si m<BAC=53°, m<BCD=60° y AC=20, halle CD.

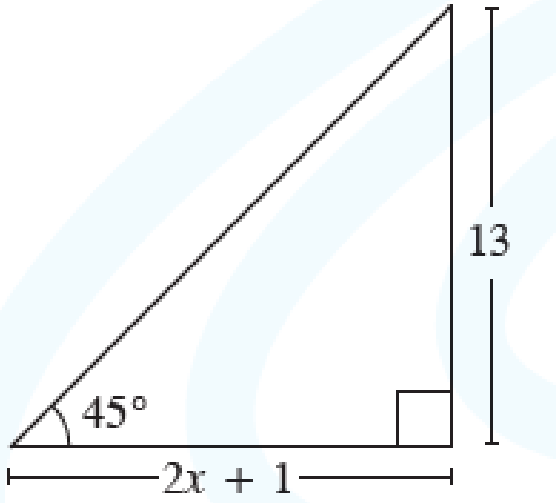




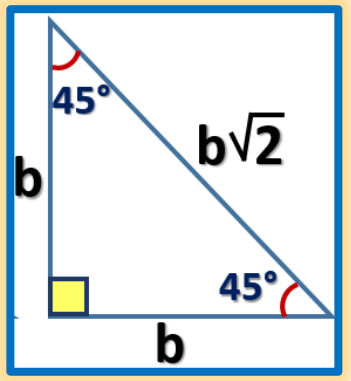


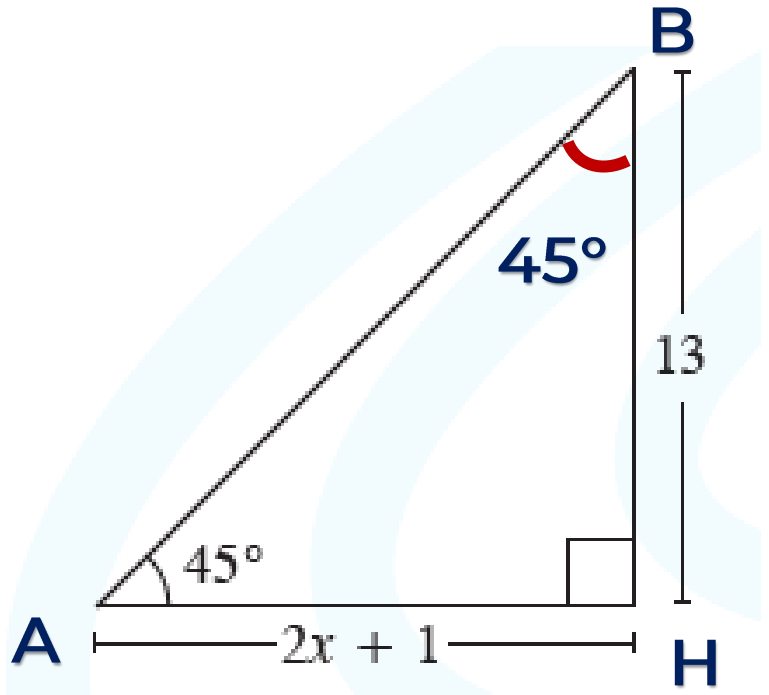
AC = 8

6. Halle el valor de x.



Solución





Sus catetos tienen igual longitud

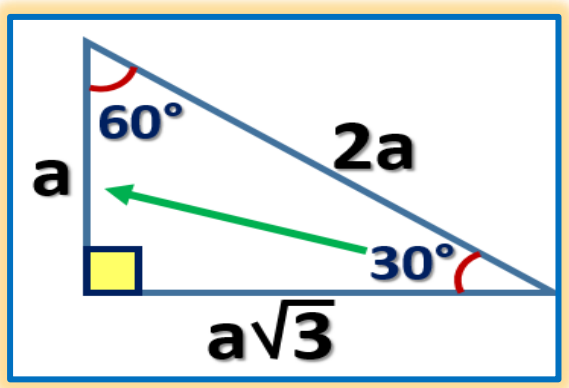
$$AH = HB$$

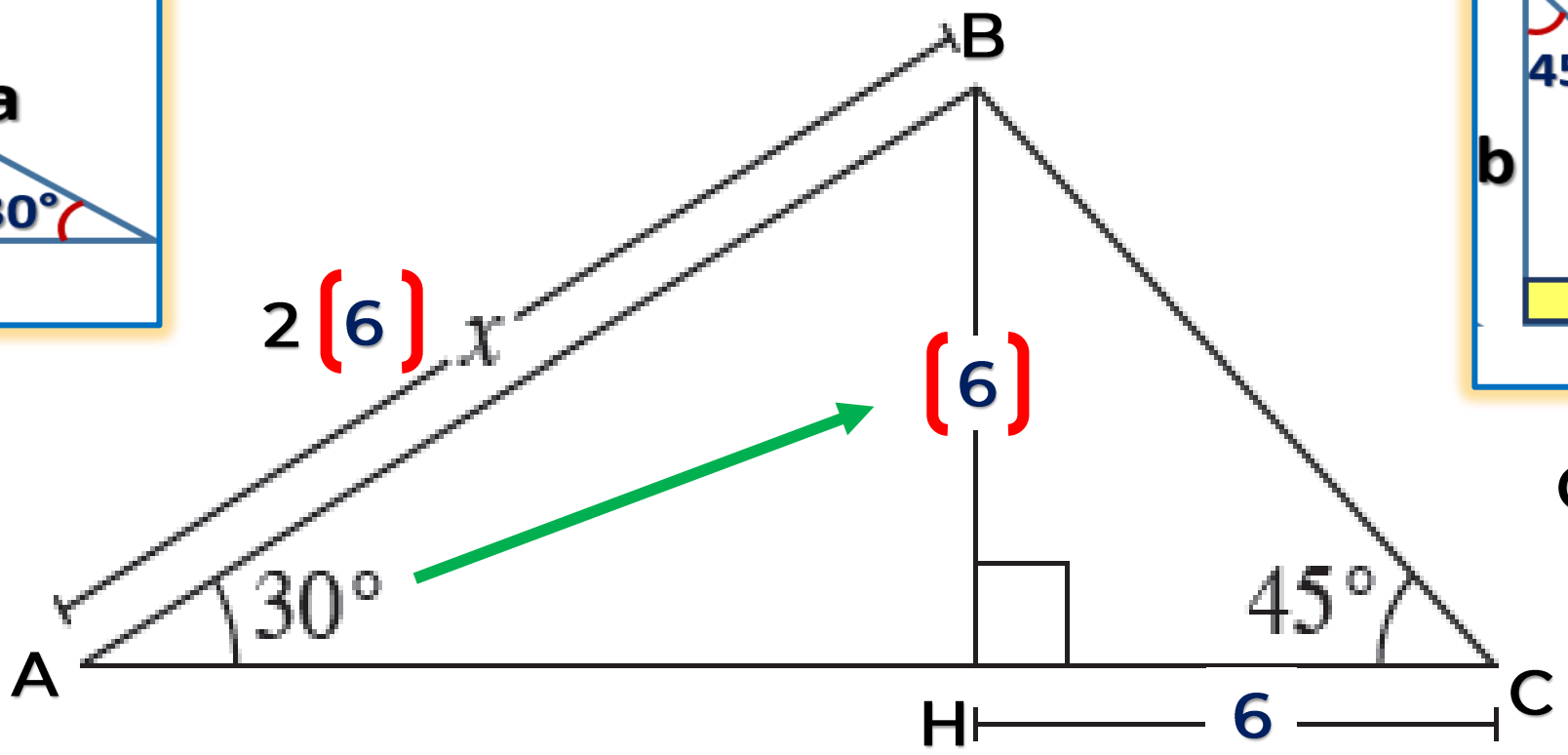
$$2x + 1 = 13$$

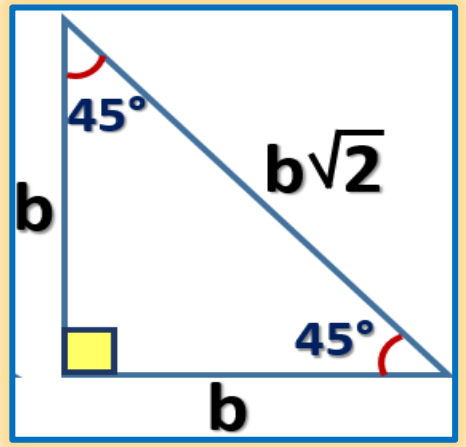
$$2x = 12$$

$$X = 6$$

7. Halle el valor de x.





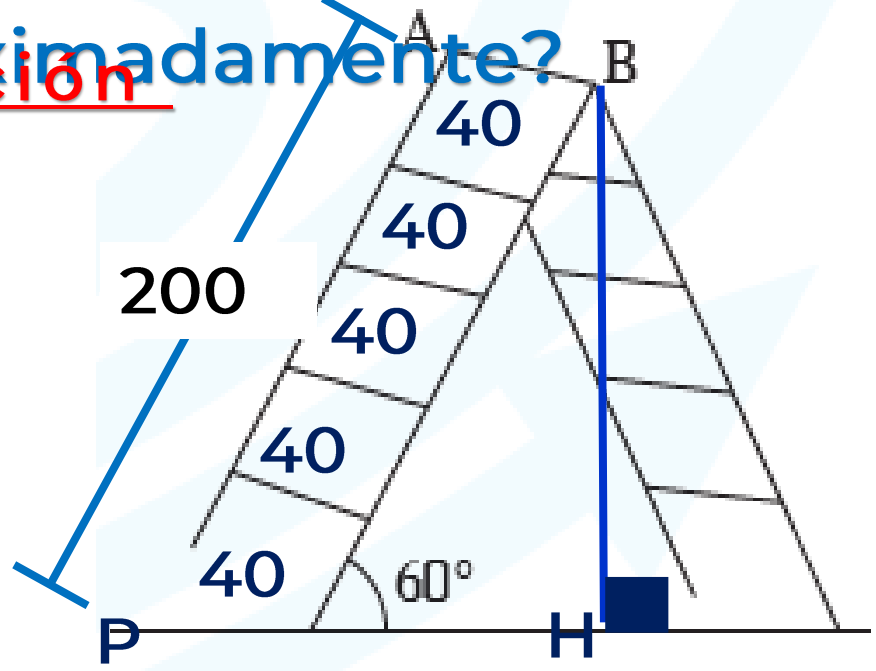


CH = BH = 6

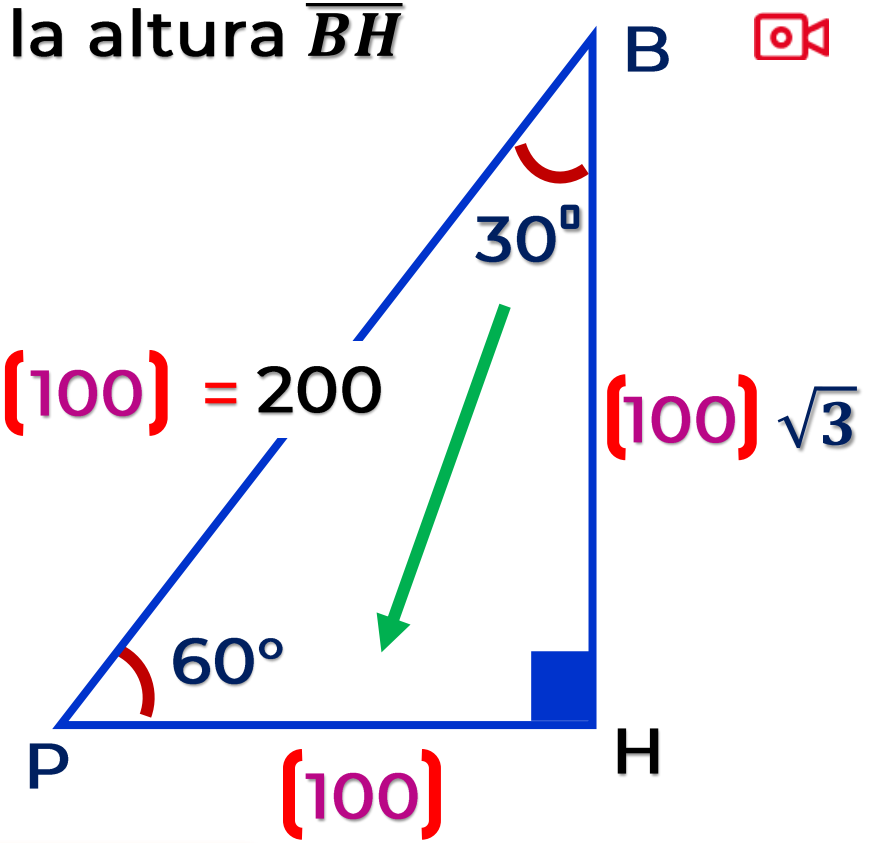
X = 12

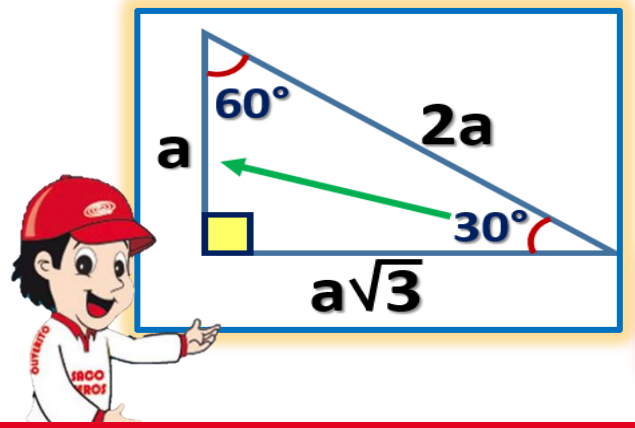
8. Se muestra una escalera, de 4 peldaños equidistantes 40cm, unidos por una bisagra $\overline{AB}$. ¿A qué altura se encuentra el extremo $\overline{AB}$ aproximadamente?

Solución



Se traza la altura $\overline{BH}$





BH = (100) $\sqrt{3}$

h = 100 (1,73)

h = 173 cm


SACO
OLIVEROS