

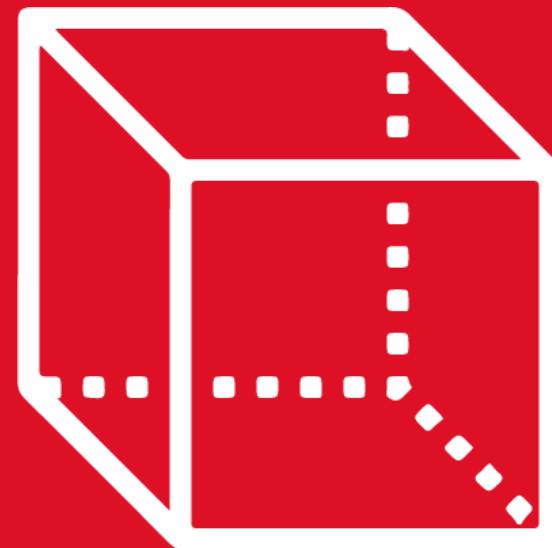
GEOMETRÍA

Tomo 3

1st

SECONDARY

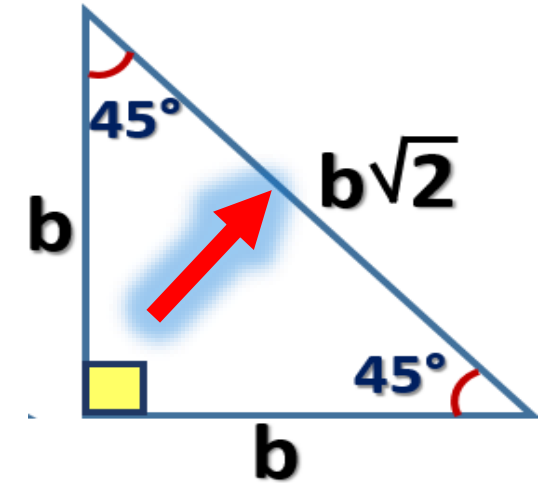
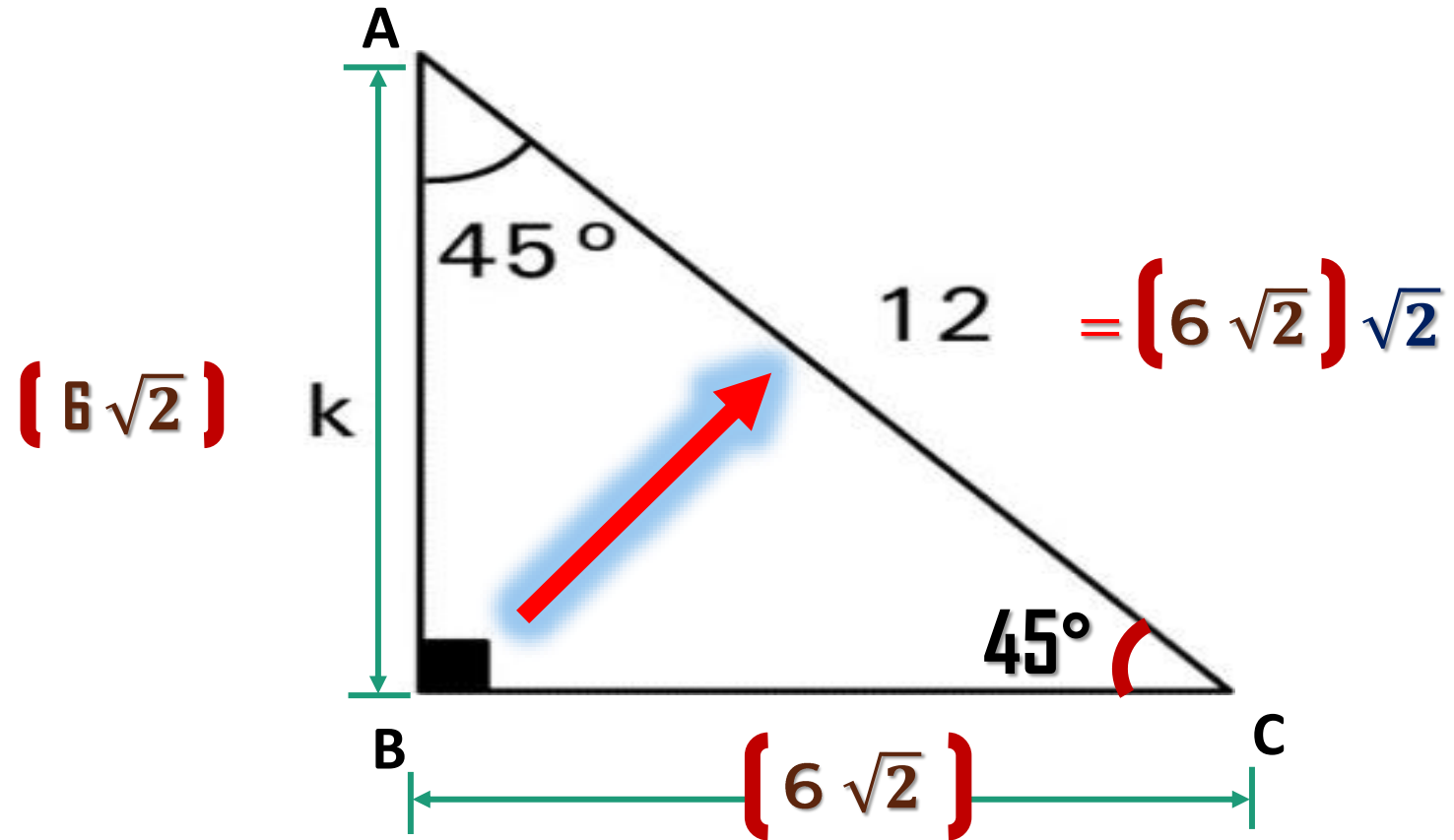
Retroalimentación



 **SACO OLIVEROS**



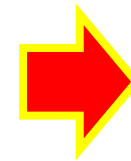
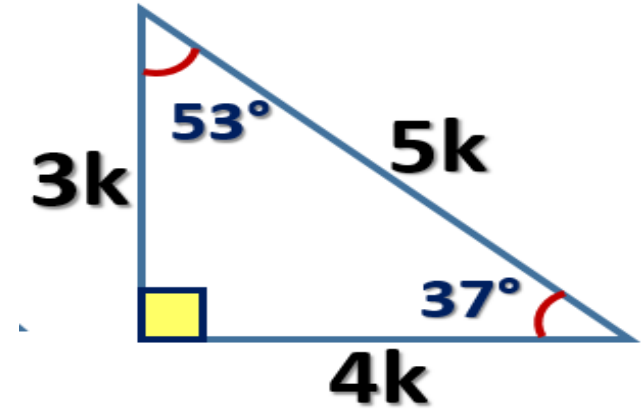
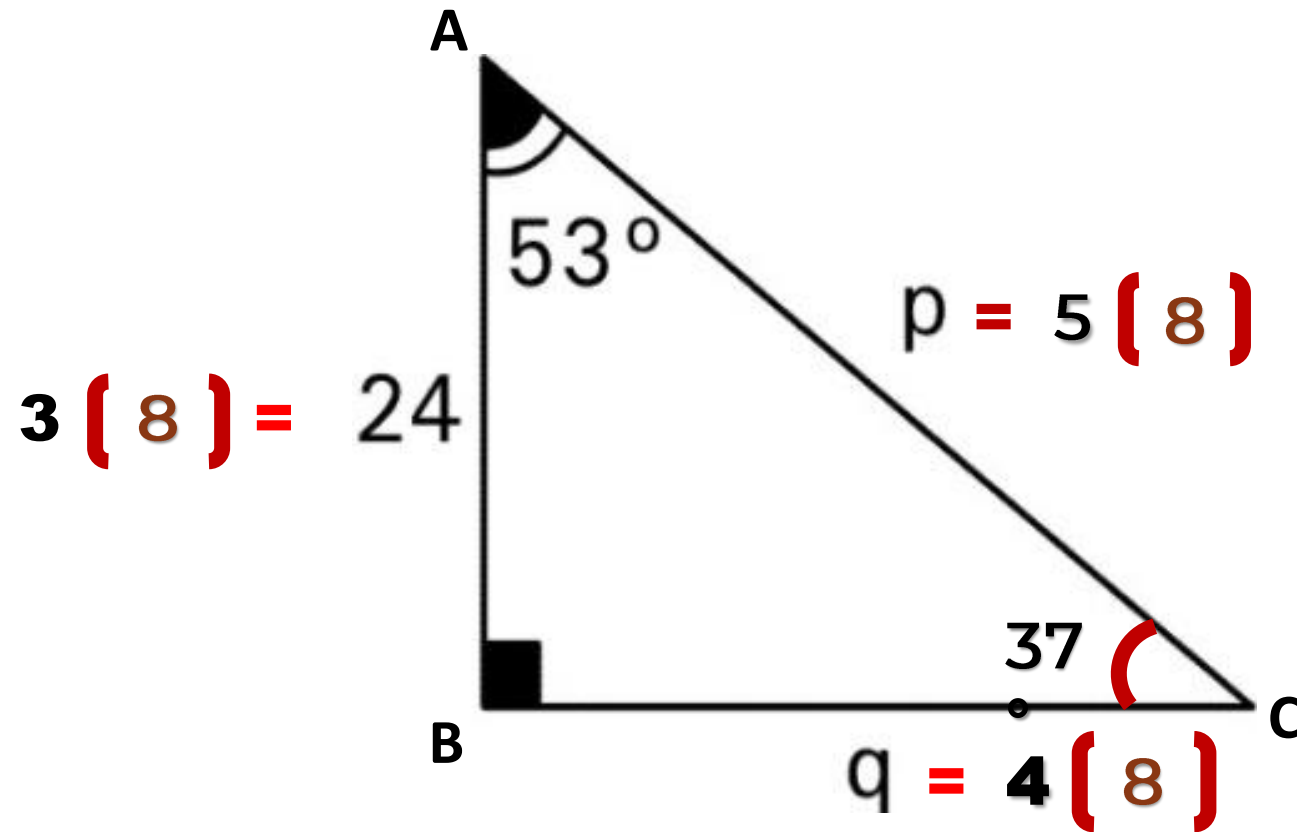
1. Halle el valor de k



$$k = 6\sqrt{2}$$



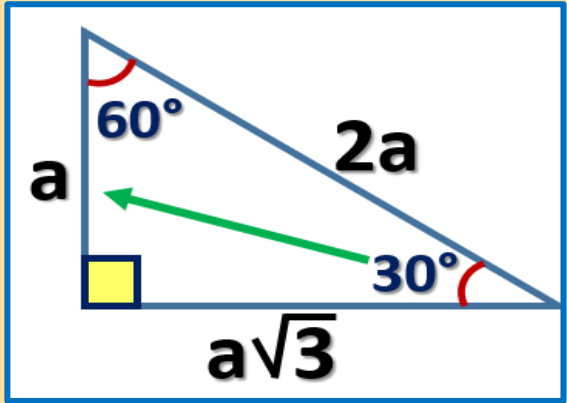
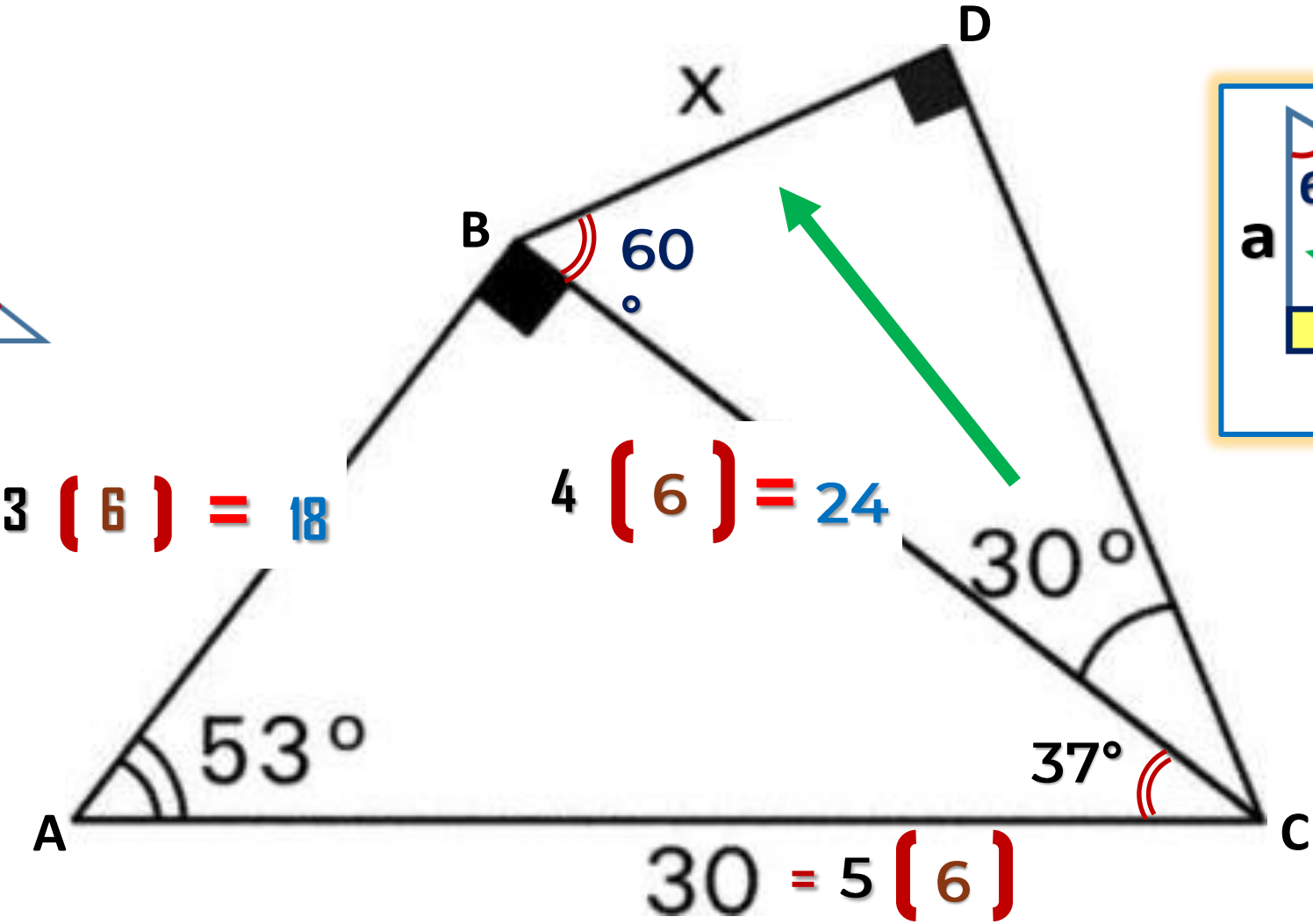
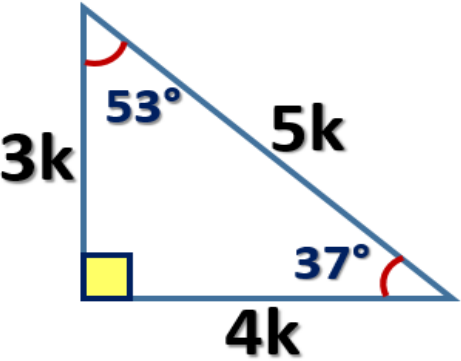
2. Halle el valor de $p + q$



$$p = 5(8) = 40$$

$$q = 4(8) = 32$$

$$p + q = 72$$

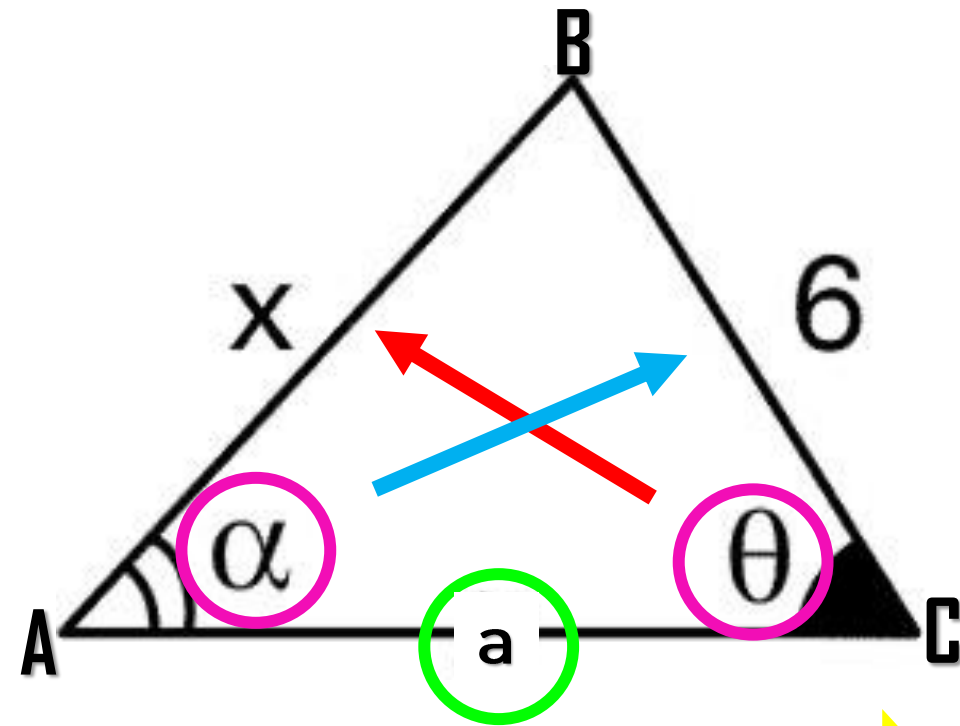


x = 12

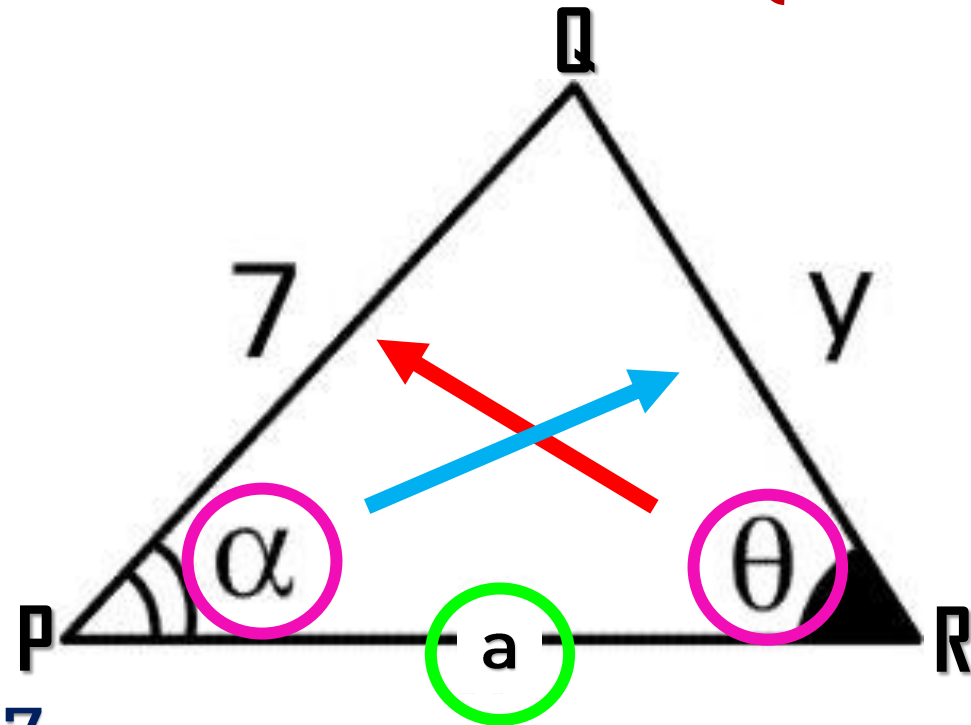


4. Halle el valor de $x + y$

$$\triangle_{\text{C}} \text{AB} \cong \triangle \text{PQR} \quad (\text{L-A-L})$$



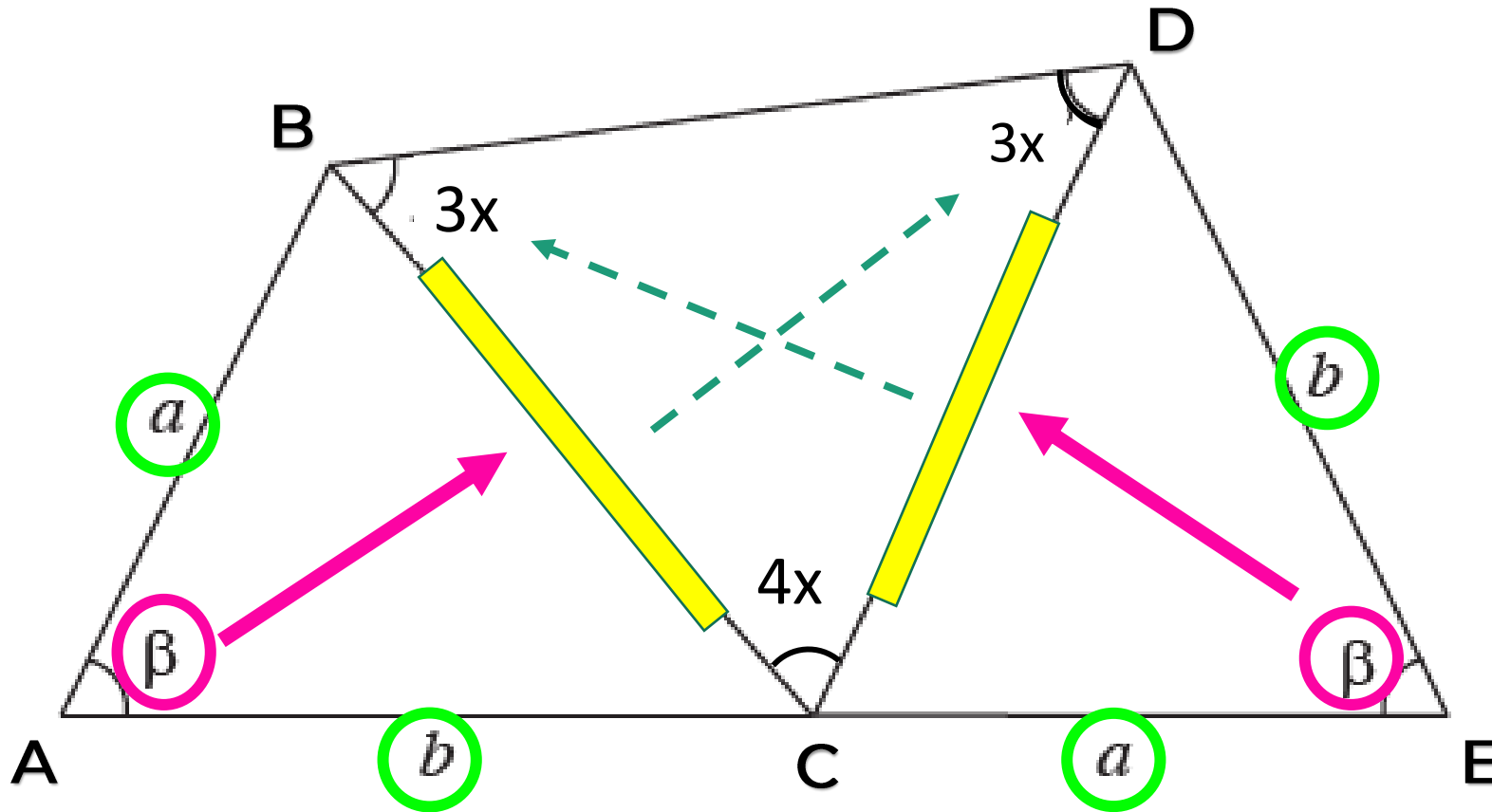
$$\begin{cases} x = 7 \\ y = 6 \end{cases}$$



$$x + y = 13$$



5. Halle el valor de x



$$\triangle BAC \cong \triangle CED$$

[L A L]

➡ $BC = CD$

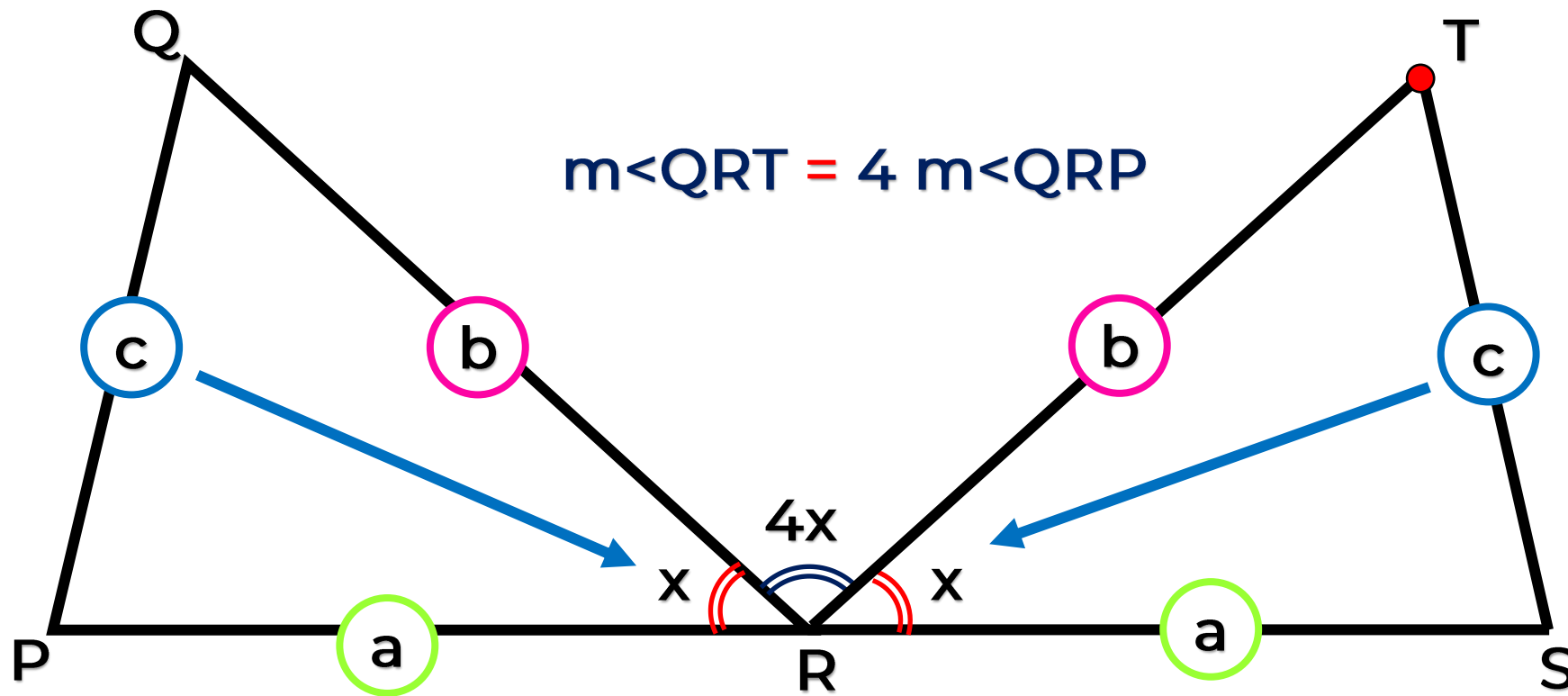
$\triangle BCD$ (isósceles)

$$3x + 4x + 3x = 180^\circ$$

$$x = 18^\circ$$



6. Se tiene un triángulo PQR y se prolonga PR hasta S tal que PR = RS, luego se ubica un punto exterior T, relativo a QR, TR = QR y TS = PQ y $m\angle QRT = 4m\angle QRP$. Halle $m\angle QRP$.



$$\triangle PQR \cong \triangle STR$$

[L L L]

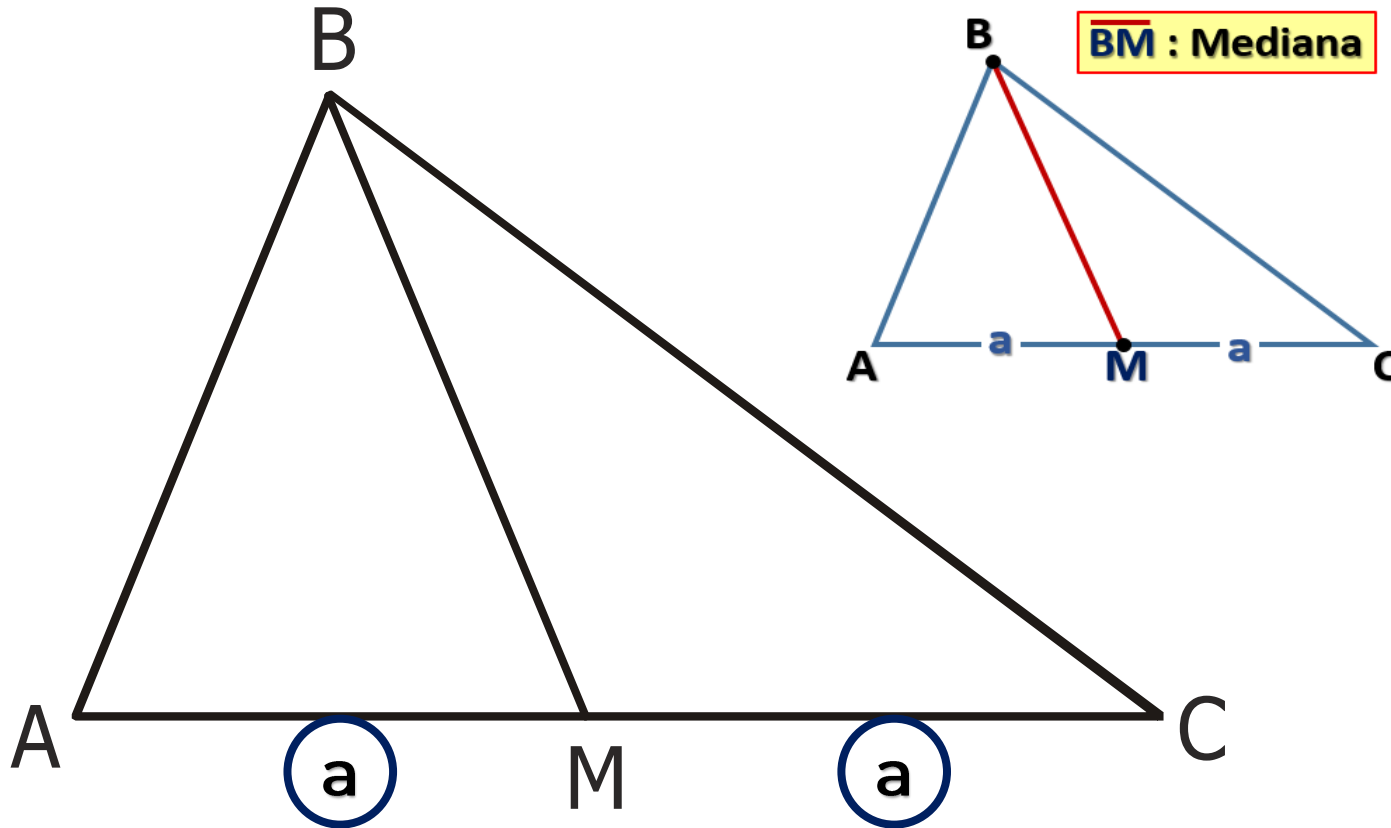
➔ En el vértice R

$$x + 4x + x = 180^\circ$$

$$x = 30^\circ$$



7. Si \overline{BM} es mediana y $AM + AC = 42$ cm , hallar MC.



➔ $\underbrace{AM} + \underbrace{AC} = 42$

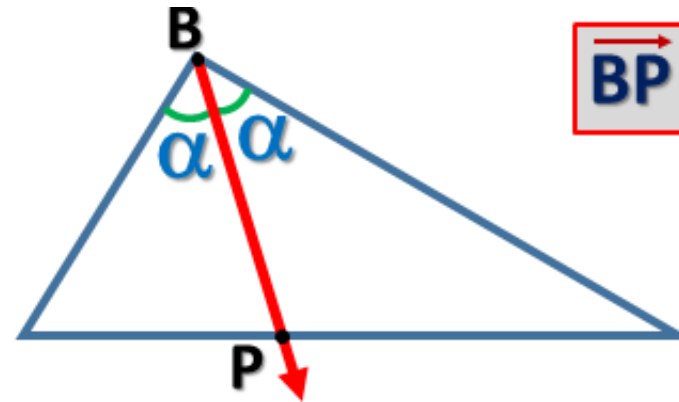
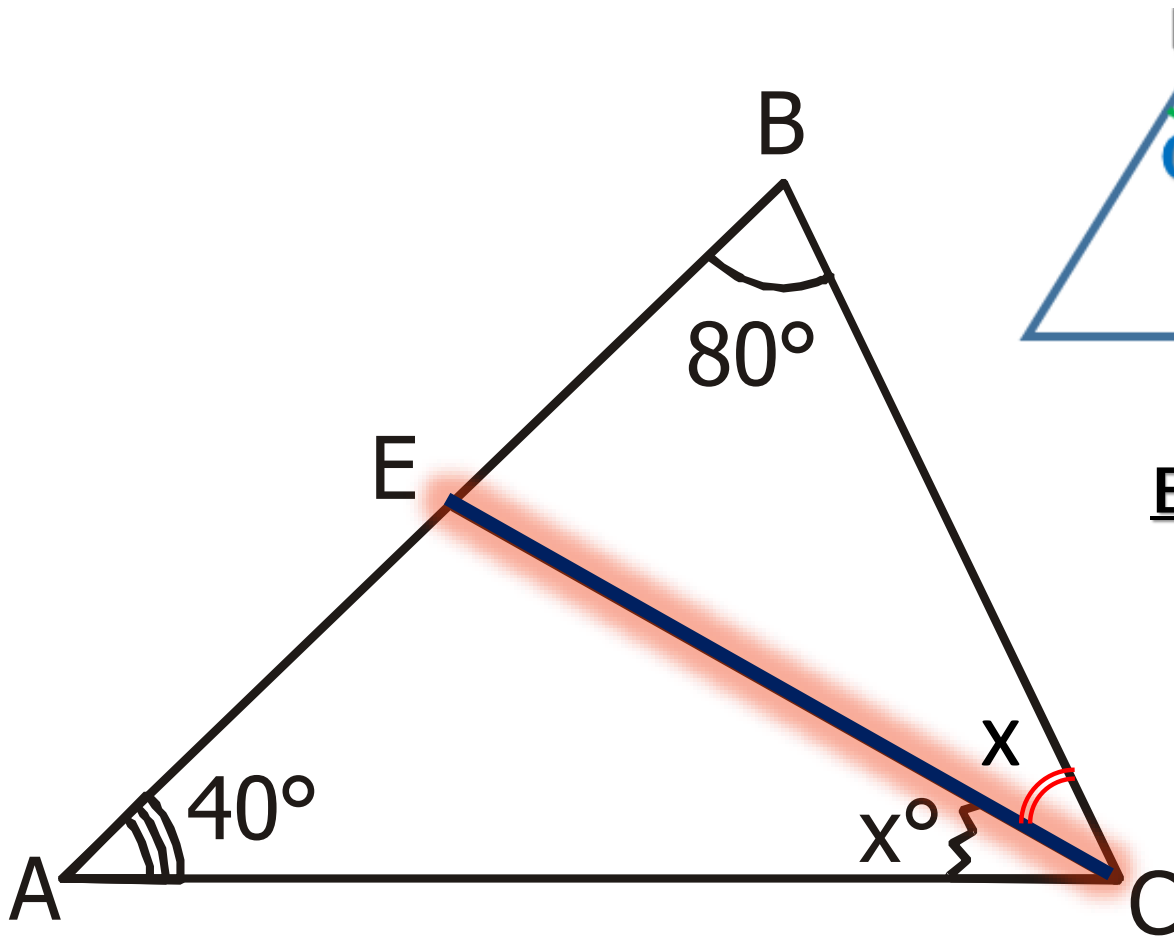
$$a + 2a = 42$$

$$3a = 42$$

$$a = 14$$



8. Si \overline{CE} es bisectriz del ángulo C , halle el valor de x



\overrightarrow{BP} : Bisectriz Interior

En el ΔABC

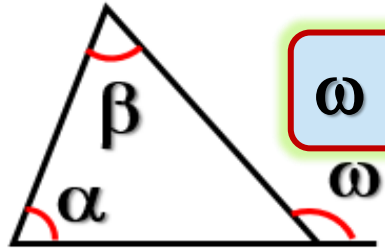
$$40^\circ + x + x + 80^\circ = 180^\circ$$

$$2x = 60^\circ$$

$$x = 30^\circ$$

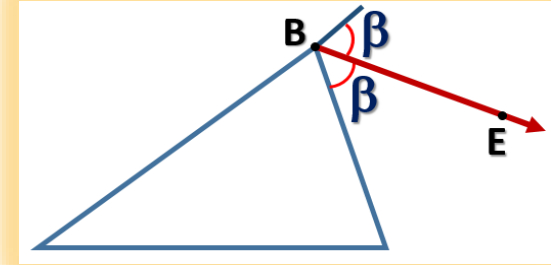


9. En el gráfico \overline{RE} es bisectriz exterior del triángulo ARQ. Hallar ϕ



$$\omega = \alpha + \beta$$

\overrightarrow{BE} : Bisectriz Exterior



En el ΔAQR

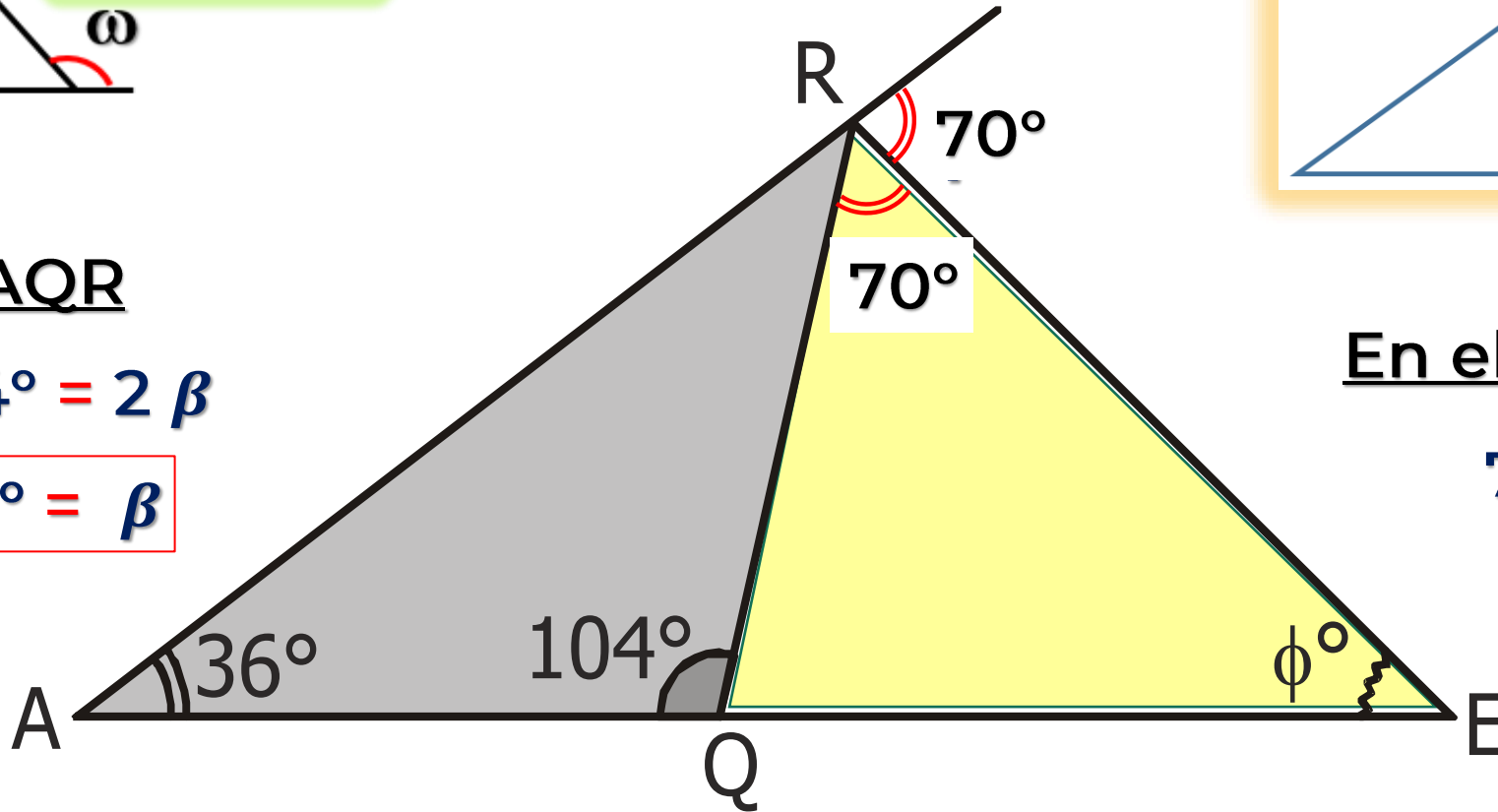
$$36^\circ + 104^\circ = 2\beta$$

$$70^\circ = \beta$$

En el ΔQRE

$$70^\circ + \phi = 104^\circ$$

$$\phi = 34^\circ$$





10. Se construye un pozo de agua para abastecer tres viviendas en una población rural, tal como se muestra en el gráfico. Halle $m\angle ABC$.

Halle $m\angle ABC = \alpha + \beta$

$\triangle APB$ y $\triangle BPC$ Isósceles

En el $\triangle ABC$

$$\alpha + \beta + \alpha + \beta = 180^\circ$$

$$2\alpha + 2\beta = 180^\circ$$

$$\alpha + \beta = 90^\circ$$

$$m\angle ABC = 90^\circ$$

