

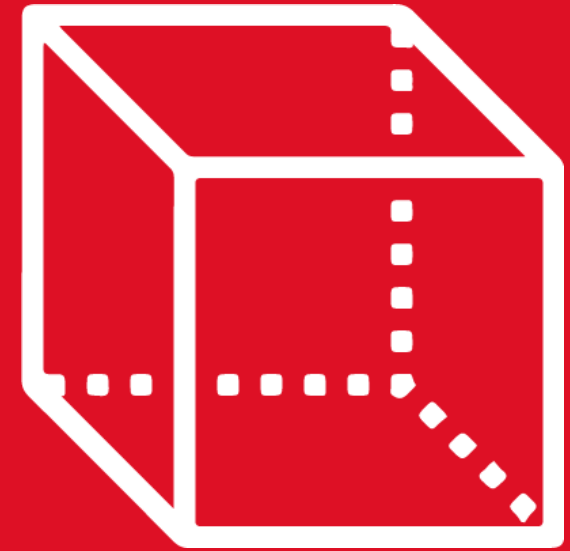
# GEOMETRÍA

**Tomo 3**

**2st**

SECONDARY

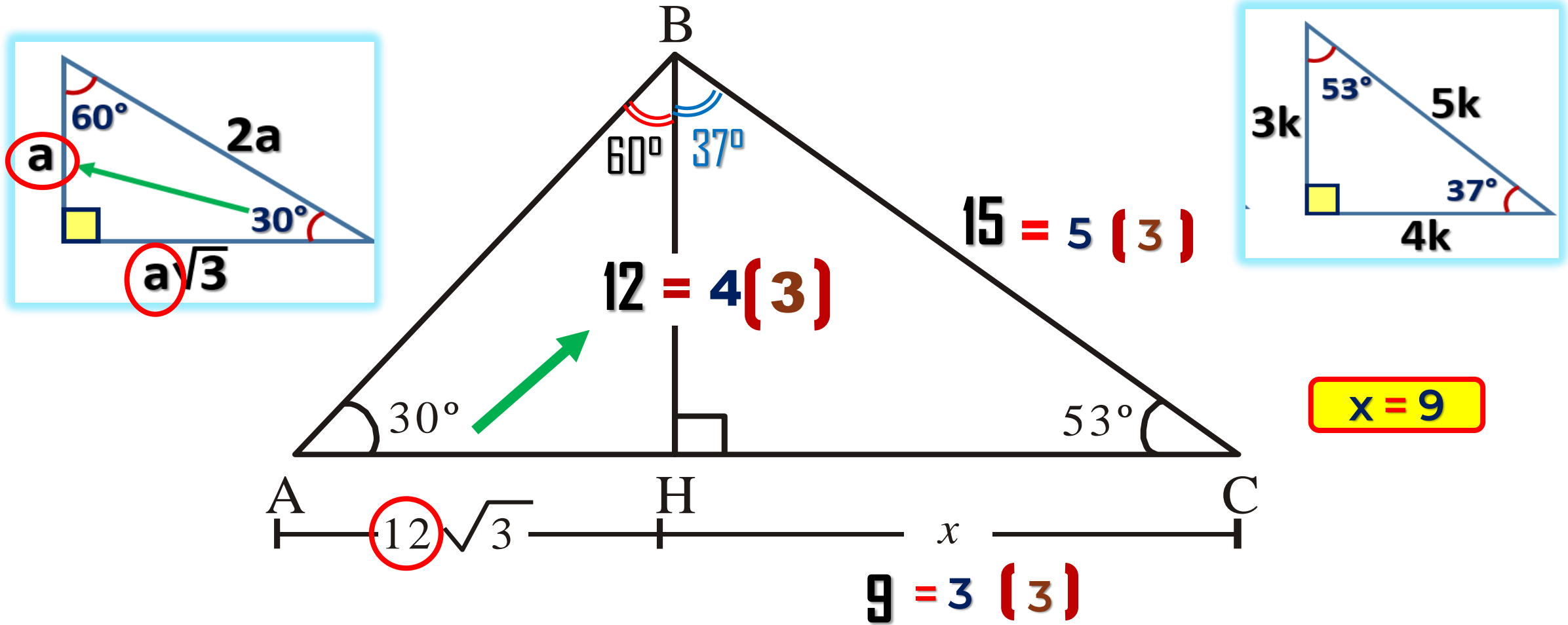
**Retroalimentación**



 **SACO OLIVEROS**

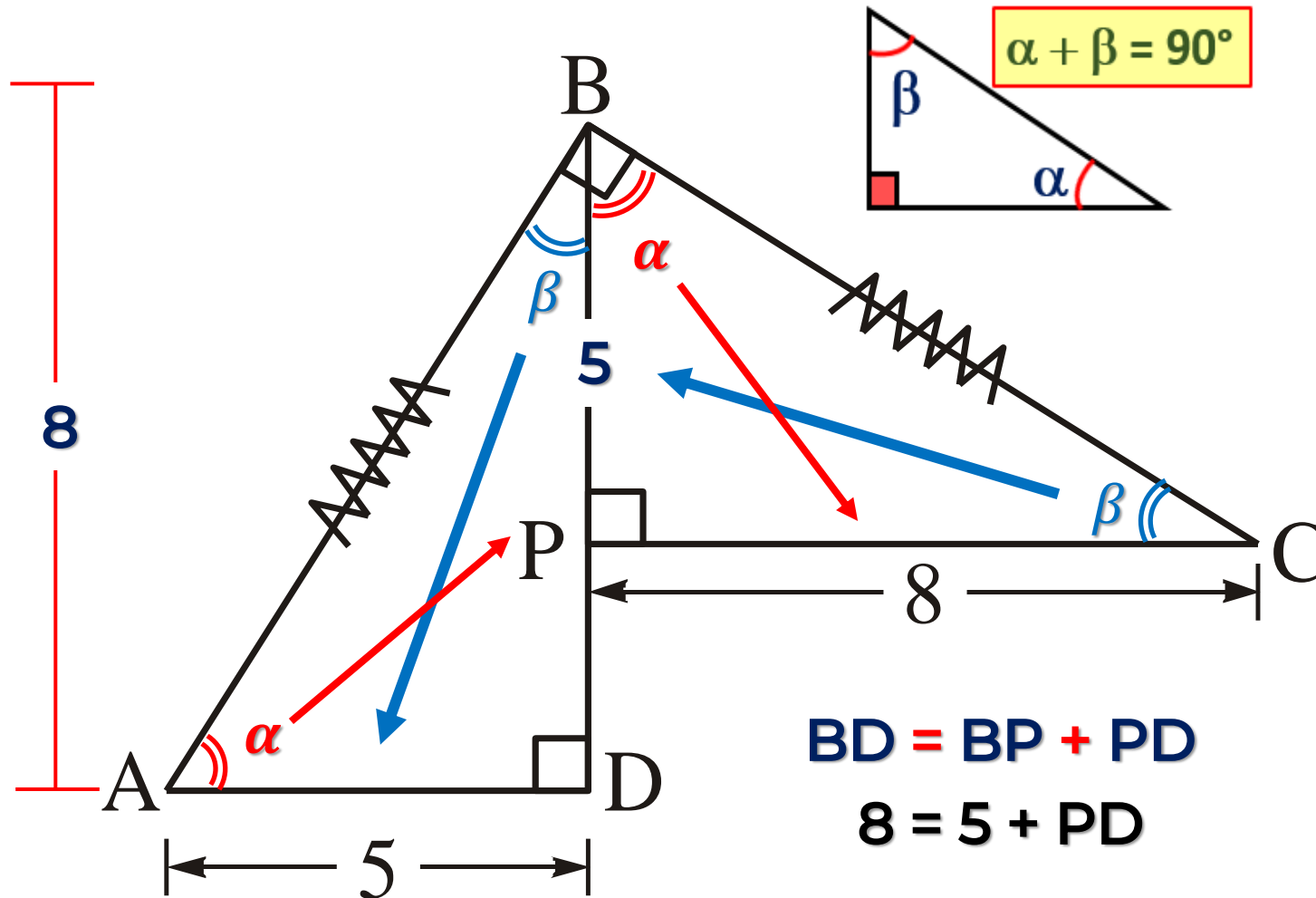


1. En la figura, calcular  $x$ .



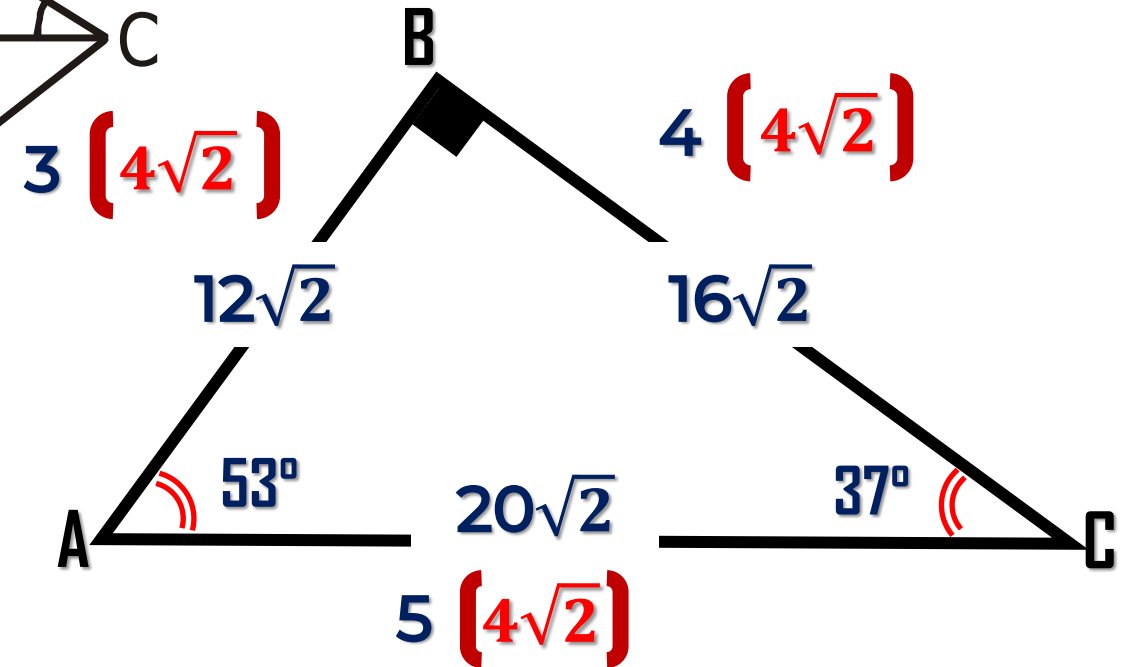
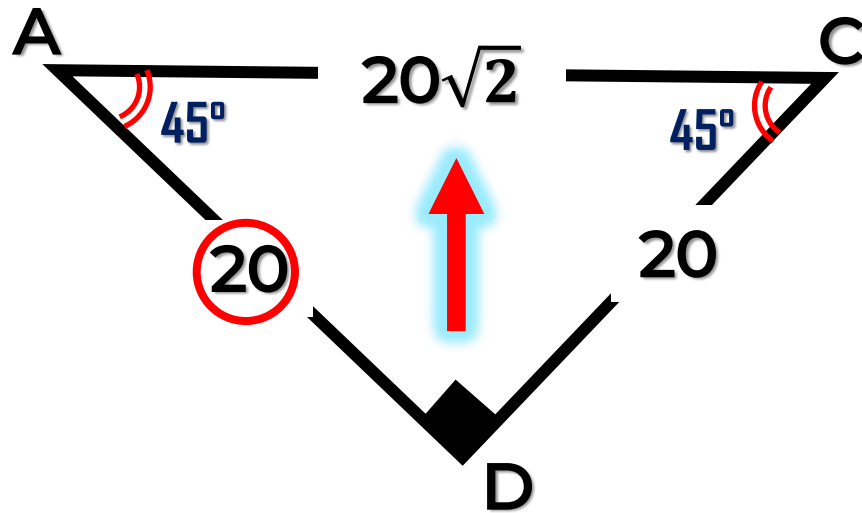
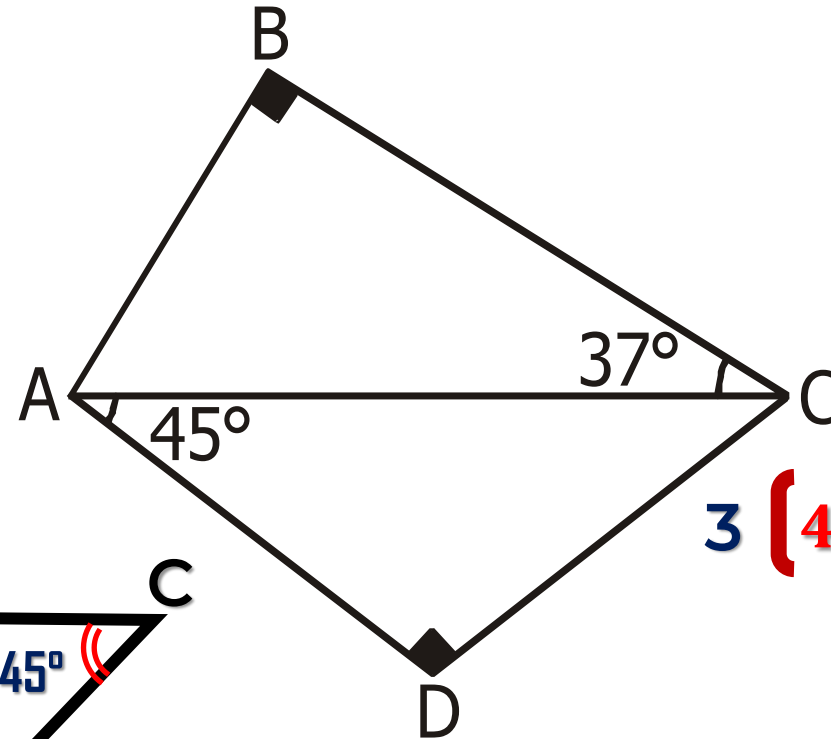
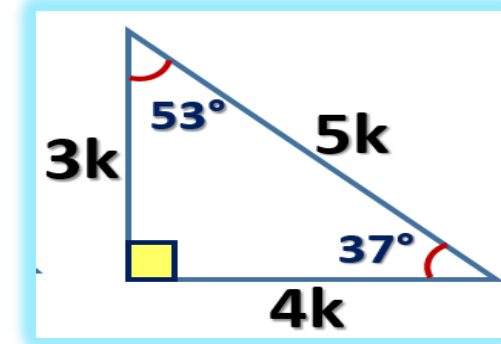
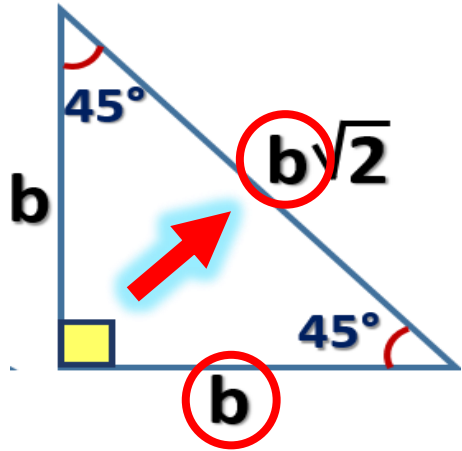


2. En el gráfico,  $PC = 8$ ,  $AD = 5$ . Hallar  $PD$





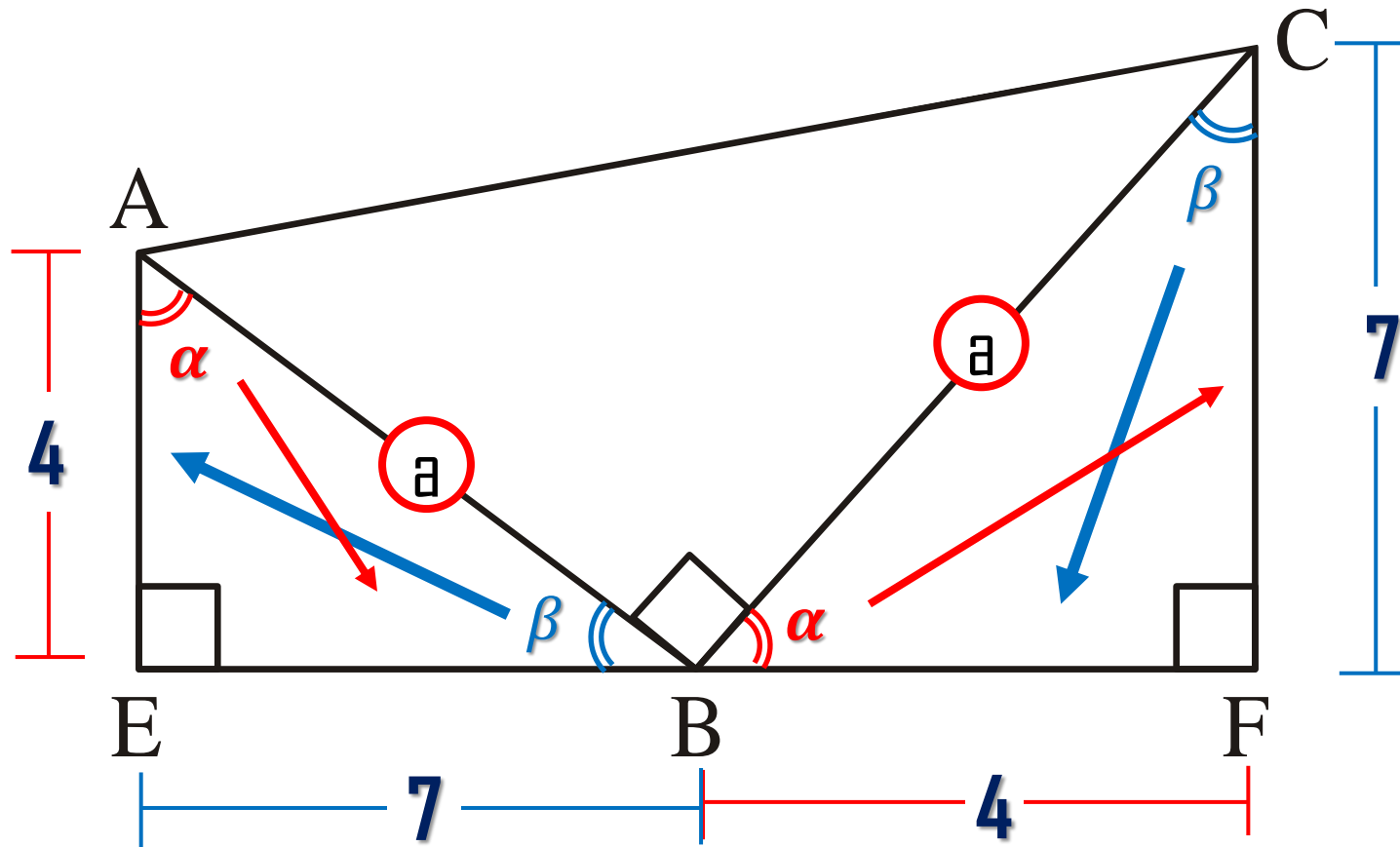
3. Si:  $AD = 20$  , calcular  $BC$ .



**$BC = 16\sqrt{2}$**



4. En el gráfico ,  $AB = BC$  ,  $AE = 4$  y  $CF = 7$ . Calcular  $EF$ .



$$\triangle AEB \cong \triangle BFC$$

[ A L A ]

$$\Rightarrow \begin{cases} AE = BF = 4 \\ CF = EB = 7 \end{cases}$$

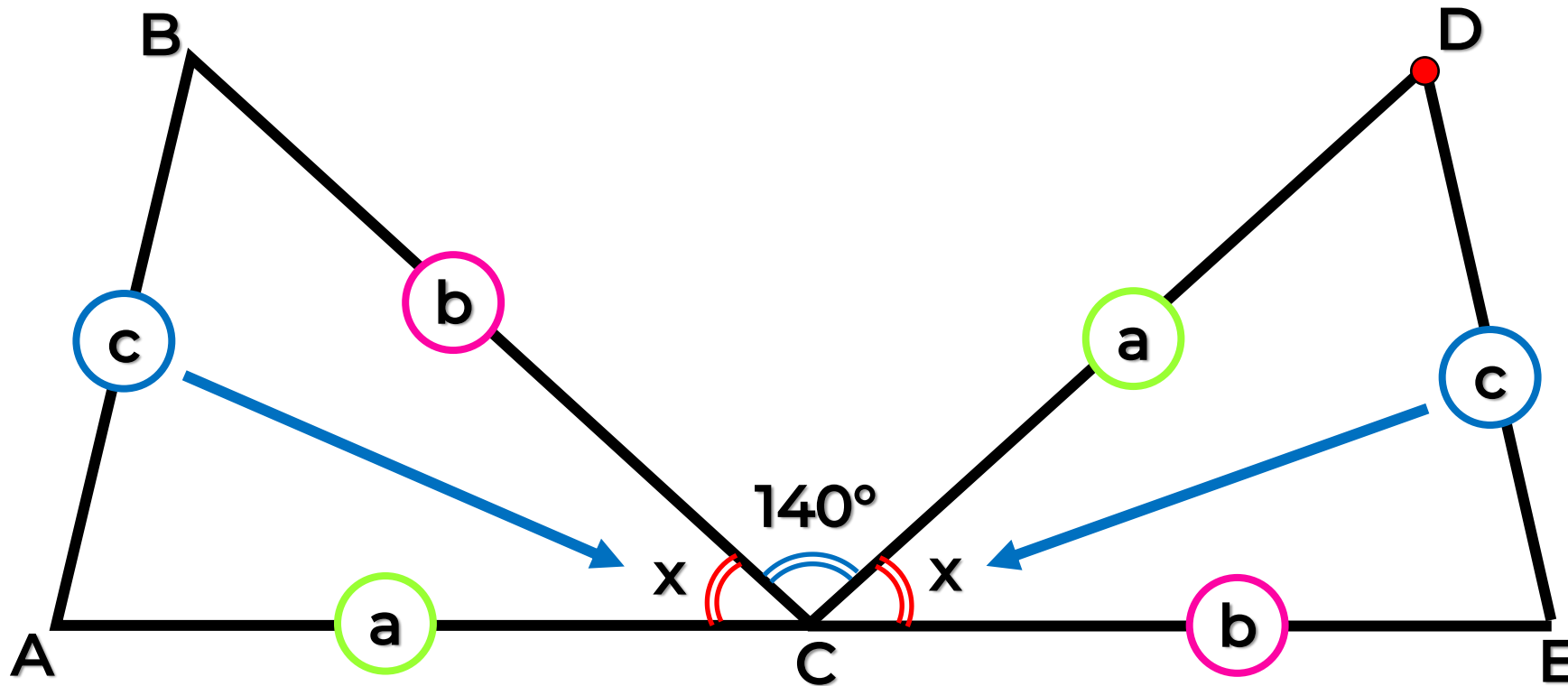
$$EF = EB + BF$$

$$EF = 7 + 4$$

$$EF = 11$$



5. En un triángulo ABC se prolonga  $\overline{AC}$  hasta E, se ubica el punto D exterior y relativo a BC,  $AC = CD$ ,  $AB = DE$ ,  $BC = CE$  y  $m\angle BCD = 140^\circ$ . Halle  $m\angle DCE$ .



$$\triangle ABC \cong \triangle DEC$$

[ L L L ]

En el vértice C

$$x + 140^\circ + x = 180^\circ$$

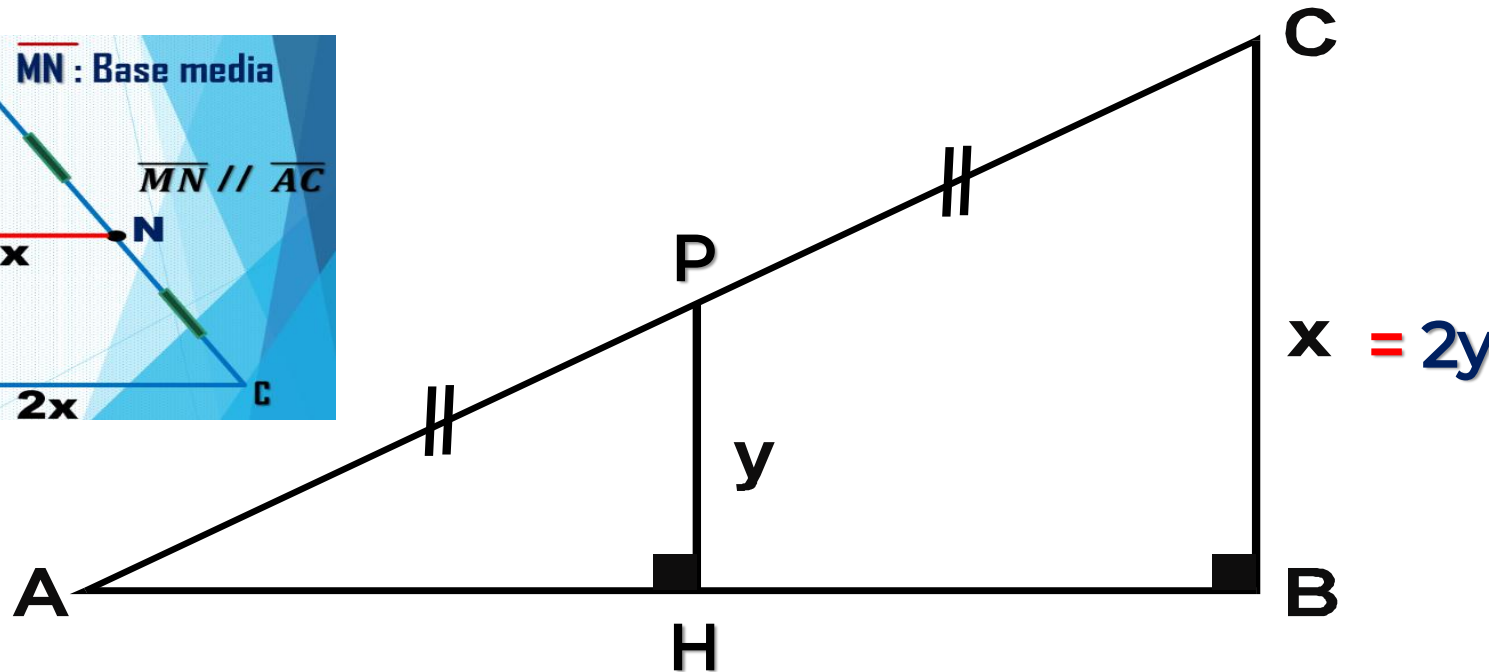
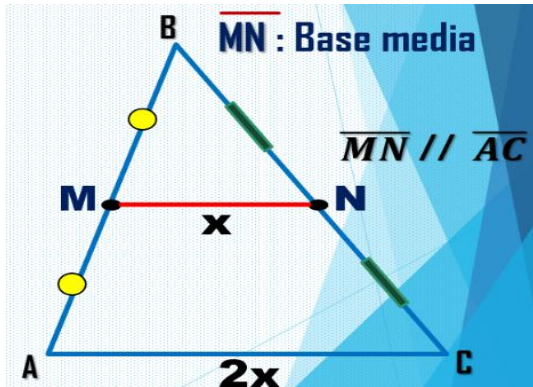
$$x = 20^\circ$$



6. Si  $x + y = 24$ , halle el valor de  $x$ .

$\overline{PH} \parallel \overline{CB}$

(Base media)



DATO:

$$x + y = 24$$

$$2y + y = 24$$

$$3y = 24$$

$$y = 8$$

$$x = 2(y) = 16$$

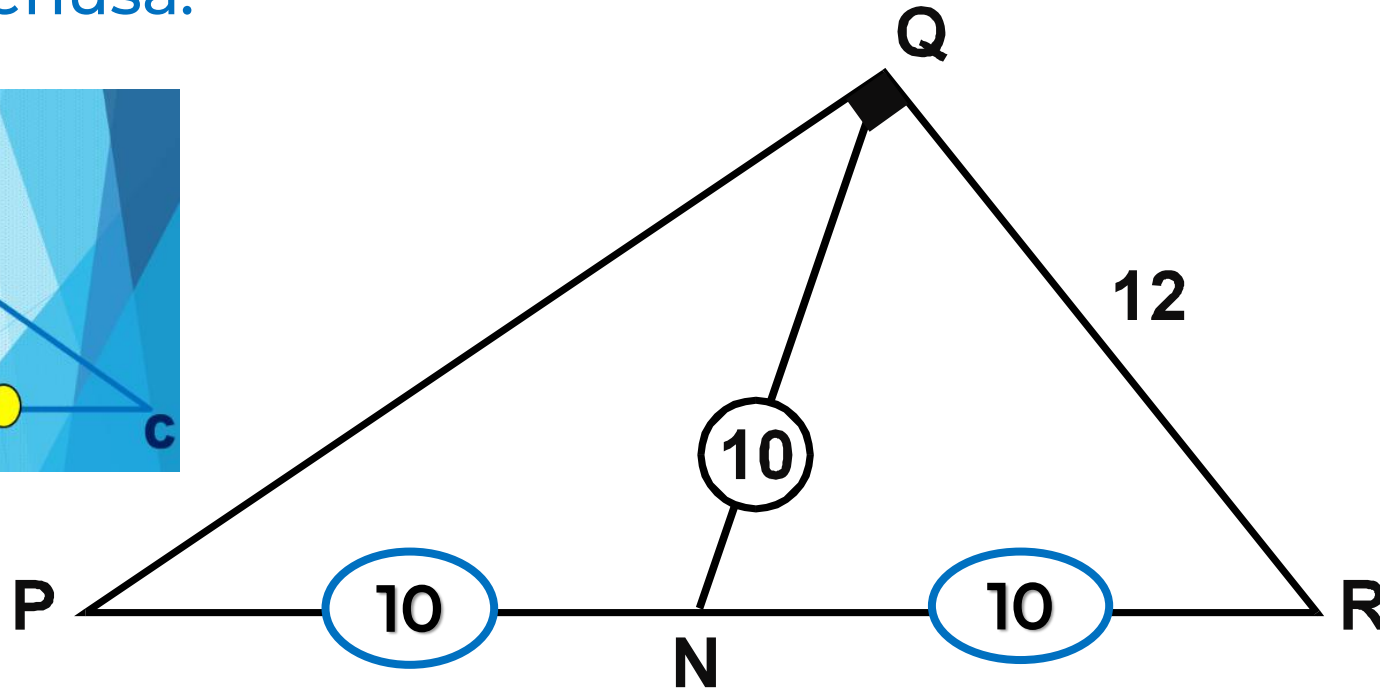
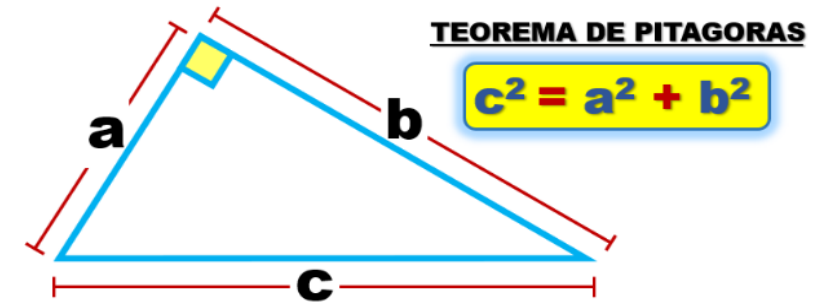
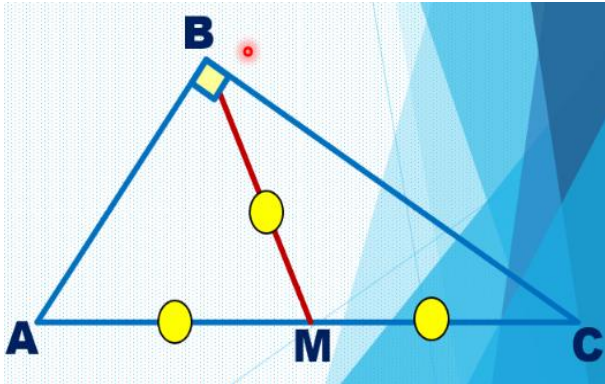
$$x = 16$$

## 7. En el gráfico, Halle le valor de PQ.



N punto medio de PR

BM : Mediana relativa a la hipotenusa.



$$PR^2 = PQ^2 + QR^2$$

$$20^2 = PQ^2 + 12^2$$

$$PQ^2 = 400 - 144$$

$$PQ^2 = 256$$

$$PQ = 16$$



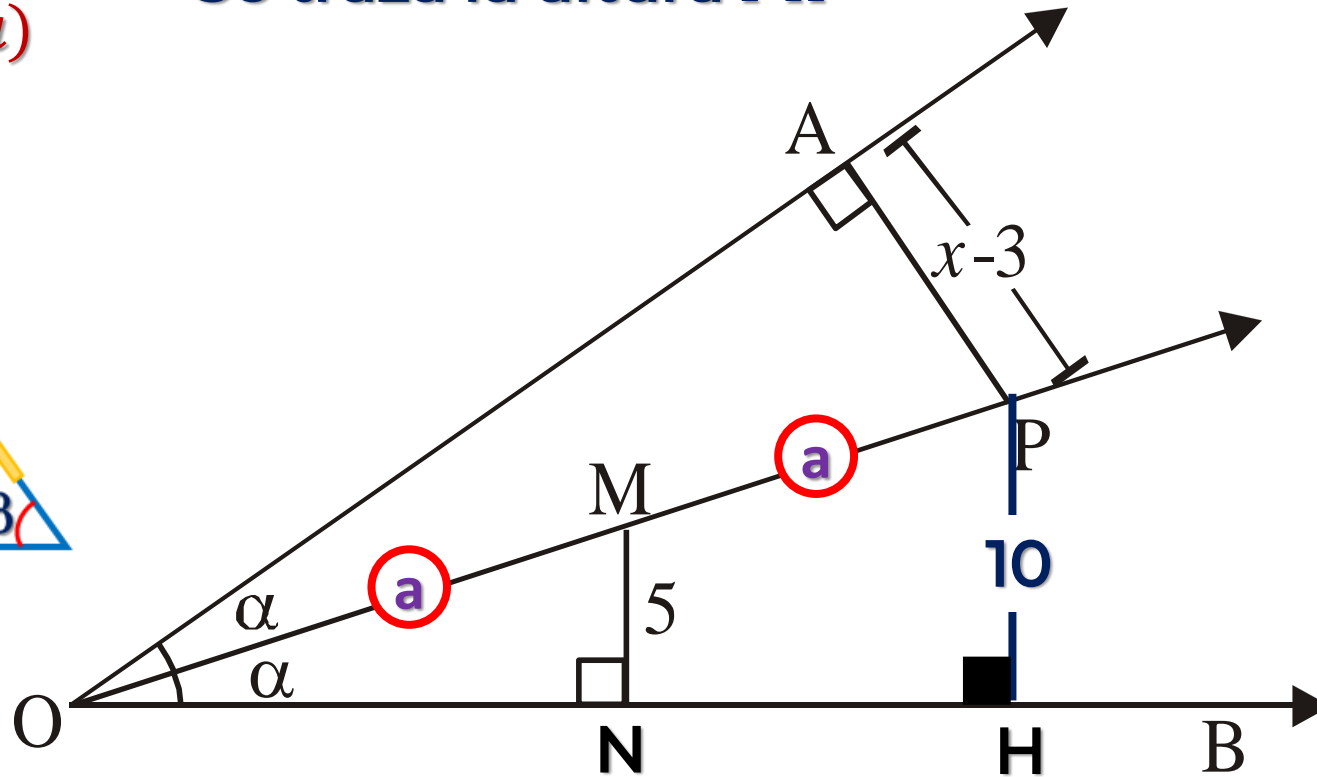
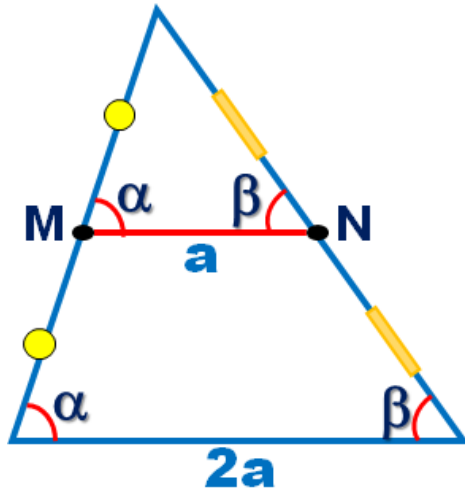


8. Si:  $OM = MP$ , Calcule el valor de  $x$ .

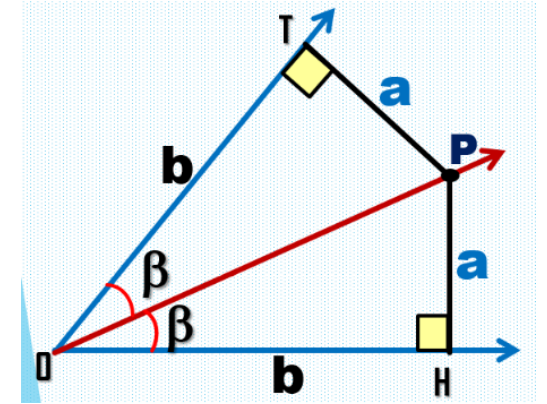
$\overline{PH} \parallel \overline{MN}$

*(Base media)*

Se traza la altura  $\overline{PH}$



TEOREMA DE LA BISECTRIZ



$$AP = PH$$

$$x - 3 = 10$$

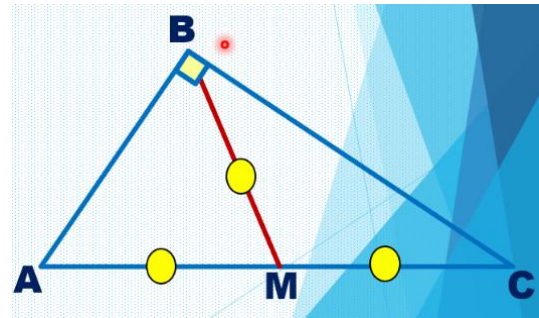
$$x = 13$$



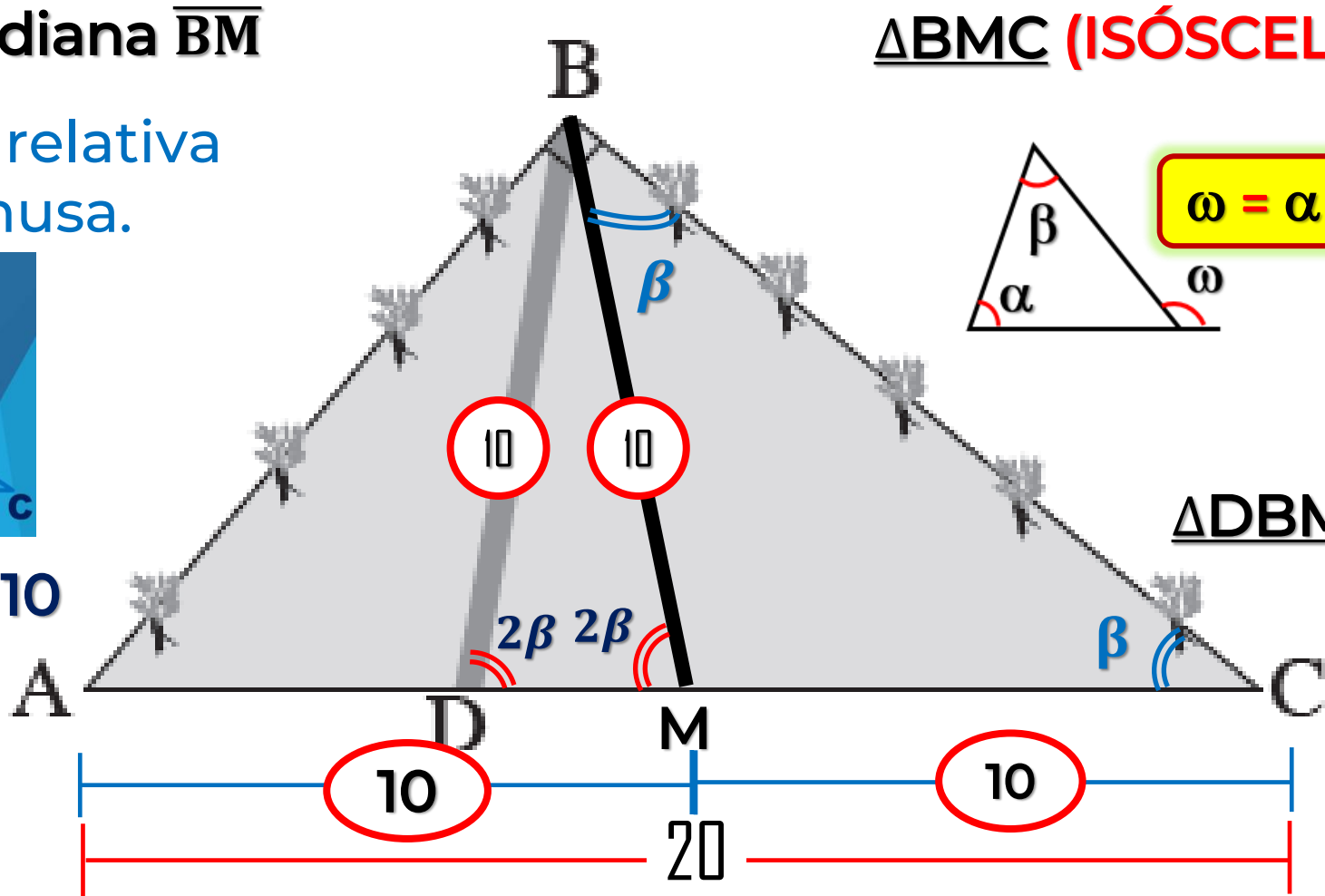
9. Se tiene un jardín ABC y una vereda  $\overline{BD}$ , tal que  $m\angle BDC = 2(m\angle BCA)$ . Si  $AC = 20$  m, halle la longitud de la vereda  $\overline{BD}$ .

Se traza la mediana  $\overline{BM}$

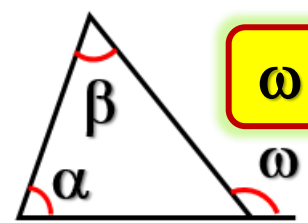
$\overline{BM}$  : Mediana relativa a la hipotenusa.



$AM = MC = BM = 10$



$\triangle BMC$  (ISÓSCELES)



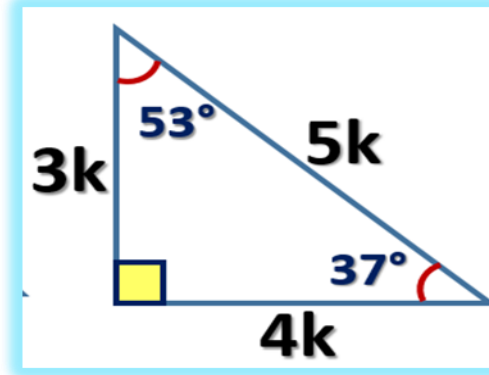
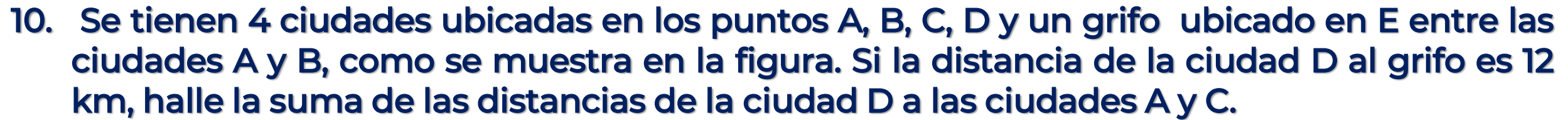
$\omega = \alpha + \beta$

$m\angle AMB = 2\beta$

$\triangle DBM$  (ISÓSCELES)

$BM = BD = 10$

$BM = 10m$



**DC = 12**



$$AD + DC = 32 \text{ km}$$