

1) Soit un triangle quelconque ABC.

a) On donne $a = BC = 8$, $\beta = 48,25^\circ$ et $\gamma = 72,6^\circ$.

Calculer α , $b = AC$ et $c = AB$.

1) Données: un triangle $\triangle ABC$

a) On donne :

$$a = BC = 8$$

$$\beta = 48,25^\circ$$

$$\gamma = 72,6^\circ$$

Calculer

$$\alpha, b = AC, c = AB.$$

Résolution:

$$\alpha = 180 - \beta - \gamma = 59,15^\circ$$

thm du sinus:

$$\frac{b}{\sin(\beta)} = \frac{a}{\sin(\alpha)} \Leftrightarrow b = a \cdot \frac{\sin(\beta)}{\sin(\alpha)} : \text{a.m.} : b = 8 \cdot \frac{\sin(48,25)}{\sin(59,15)} \approx 6,95$$

$$\frac{c}{\sin(\gamma)} = \frac{a}{\sin(\alpha)} \Leftrightarrow c = a \cdot \frac{\sin(\gamma)}{\sin(\alpha)} : \text{a.m.} : c = 8 \cdot \frac{\sin(72,6)}{\sin(59,15)} \approx 8,89$$

