

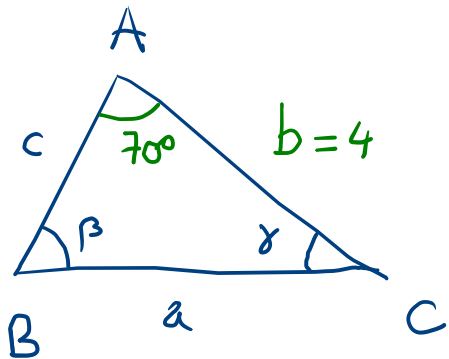
4.4.4

	a	b	c	α	β	γ	A
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f)		4		70			10
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Formulaire

$$A \quad \delta = \frac{1}{2}ab \sin(\gamma) = \frac{1}{2}ac \sin(\beta) = \frac{1}{2}bc \sin(\alpha)$$



$$1) A: \quad \frac{1}{2} \cdot 4 \cdot C \cdot \sin(70^\circ) = 10$$

$$2C \cdot \sin(70^\circ) = 10 \quad \left| \div 2 \right.$$

$$C \cdot \boxed{\sin(70^\circ)} = 5 \quad \left| \div \sin(70^\circ) \right.$$

$$C = \frac{5}{\sin(70^\circ)} \approx 5,32$$

$$2) \quad a^2 = 4^2 + 5,32^2 - 2 \cdot 4 \cdot 5,32 \cdot \cos(70^\circ)$$

$$a \approx \underline{5,45}$$

3) Calculons β :

$$4^2 = 5,45^2 + 5,32^2 - 2 \cdot 5,45 \cdot 5,32 \cdot \cos(\beta)$$

$$\cos(\beta) \approx 0,724372 \quad \Rightarrow \quad \beta \approx 43,58^\circ$$

$$4) \quad \gamma = 180^\circ - 43,58^\circ - 70^\circ = 66,42^\circ$$

4.4.6 Calculer la longueur des segments BC , BD , AD et AB , sachant que la longueur du segment AC vaut 88 cm.

