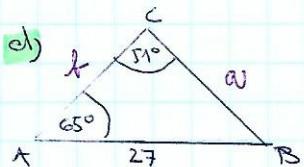


$$\begin{aligned} \alpha^2 &= b^2 + c^2 - 2bc \cdot \cos \alpha \\ 25^2 &= 35^2 + 29^2 - 2 \cdot 35 \cdot 29 \cdot \cos 29^\circ \\ 1000 &= 1225 + 841 - 1400 \cdot \cos 29^\circ \\ -1666 &= -2050 \cdot \cos 29^\circ \\ \alpha &= 37,8^\circ \end{aligned}$$

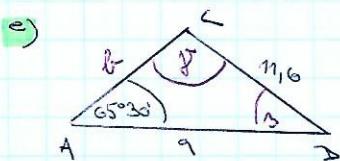
$$\begin{aligned} \beta^2 &= a^2 + c^2 - 2ab \cdot \cos \beta \\ 29^2 &= 25^2 + 55^2 - 2 \cdot 25 \cdot 55 \cdot \cos 86^\circ \\ 841 &= 625 + 3025 - 1400 \cdot \cos 86^\circ \\ -784 &= -1400 \cdot \cos 86^\circ \\ \beta &= 55,9^\circ \end{aligned}$$



$$\begin{aligned} \frac{c}{\sin \gamma} &= \frac{a}{\sin \alpha} \Rightarrow \frac{27}{\sin 51^\circ} = \frac{a}{\sin 65^\circ} \\ \Rightarrow a &= \frac{27}{\sin 51^\circ} \cdot \sin 65^\circ \\ \Rightarrow a &= 31,5 \end{aligned}$$

$$\begin{aligned} \frac{c}{\sin \gamma} &= \frac{b}{\sin \beta} \Rightarrow \frac{27}{\sin 51^\circ} = \frac{b}{\sin 64^\circ} \Rightarrow \\ \Rightarrow b &= \frac{27}{\sin 51^\circ} \cdot \sin 64^\circ \\ \Rightarrow b &= 31,2 \end{aligned}$$

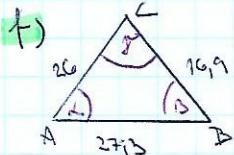
$$\beta = 180^\circ - 65^\circ - 51^\circ = 64^\circ$$



$$\begin{aligned} \frac{a}{\sin \alpha} &= \frac{c}{\sin \gamma} \Rightarrow \frac{11,6}{\sin 65^\circ 30'} = \frac{9}{\sin \gamma} \\ \Rightarrow \sin \gamma &= \frac{9 \cdot \sin 65^\circ 30'}{11,6} \\ \Rightarrow \gamma &= 44^\circ 54' \end{aligned}$$

$$\begin{aligned} \frac{a}{\sin \alpha} &= \frac{b}{\sin \beta} \Rightarrow \frac{11,6}{\sin 65^\circ 30'} = \frac{b}{\sin 69^\circ 36'} \\ \Rightarrow b &= \frac{11,6}{\sin 65^\circ 30'} \cdot \sin 69^\circ 36' \\ b &= 11,9 \end{aligned}$$

$$\alpha = 180^\circ - 65^\circ 30' - 44^\circ 54' = 69^\circ 36'$$



$$\begin{aligned} \alpha^2 &= b^2 + c^2 - 2bc \cdot \cos \alpha \\ 26^2 &= 16,9^2 + (27,3)^2 - 2 \cdot 16,9 \cdot 27,3 \cdot \cos \alpha \\ 676 &= 1030,9 - 912,74 \cdot \cos \alpha \\ -354,9 &= -912,74 \cdot \cos \alpha \\ \alpha &= 67^\circ 22' \end{aligned}$$

$$\begin{aligned} \alpha^2 &= a^2 + b^2 - 2ab \cdot \cos \alpha \\ 27,3^2 &= (16,9)^2 + 26^2 - 2 \cdot 16,9 \cdot 26 \cdot \cos \alpha \\ 745,29 &= 961,61 - 878,8 \cdot \cos \alpha \\ -216,32 &= -878,8 \cdot \cos \alpha \\ \alpha &= 75^\circ 44' \end{aligned}$$

$$\alpha = 180^\circ - 67^\circ 22' - 75^\circ 44' = 36^\circ 54'$$

Ex. 2

$$\begin{aligned} a^2 &= b^2 + c^2 - 2bc \cdot \cos \alpha \\ a^2 &= 25^2 + 360^2 - 2 \cdot 25 \cdot 360 \cdot \cos 34^\circ \\ a^2 &= 42873,23694 \\ a &= 207,05 \rightarrow 207m \end{aligned}$$

Ex. 3

$$\begin{aligned} \frac{b}{\sin \beta} &= \frac{c}{\sin \gamma} \Rightarrow \frac{30}{\sin 41^\circ} = \frac{25}{\sin \gamma} \\ \sin \gamma &= \frac{25 \cdot \sin 41^\circ}{30} \\ \gamma &= 33,14 \Rightarrow 33^\circ \end{aligned}$$