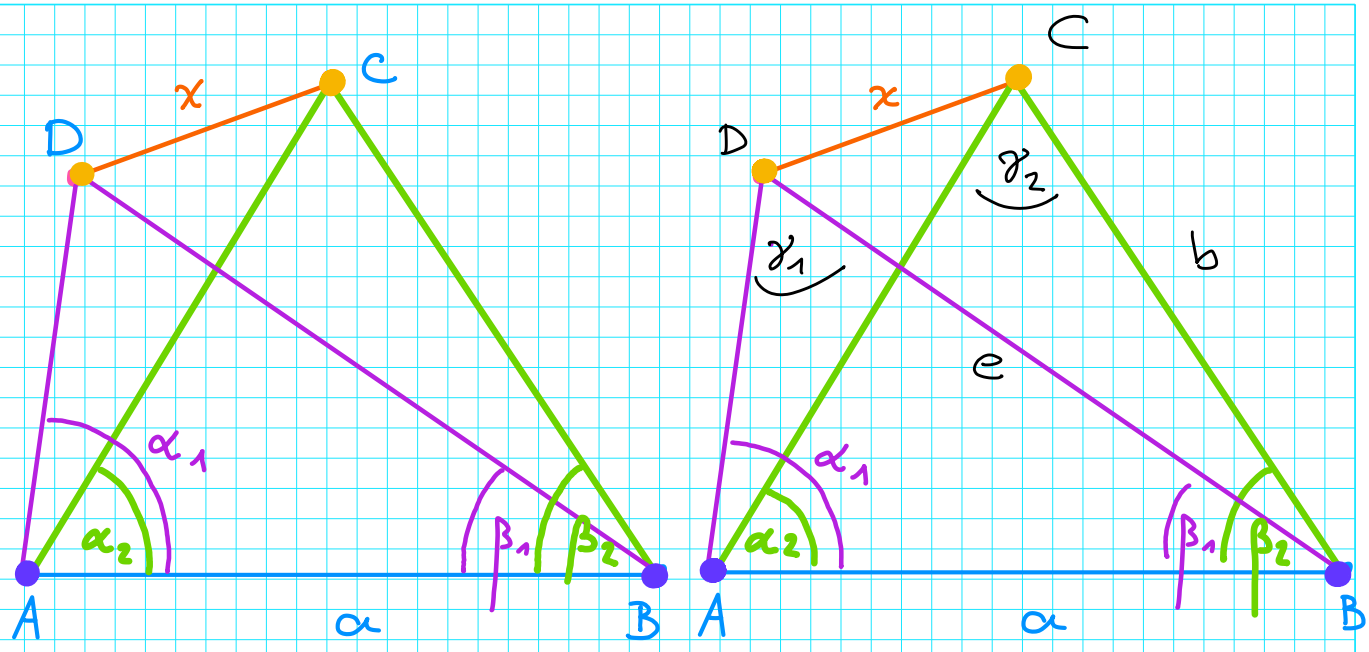


$\sphericalangle BDA = \gamma_1 = 180° - \alpha_1 - \beta_1$ $\qquad$ $\sphericalangle BCA = \gamma_2 = 180° - \alpha_2 - \beta_2$

ΔABC:

$$\frac{b}{\sin(\alpha_2)} = \frac{a}{\sin(\gamma_2)} \Rightarrow b = \frac{a \cdot \sin(\alpha_2)}{\sin(180° - \alpha_2 - \beta_2)}$$

ΔABD: $\quad e := \overline{BD}$

$$\frac{e}{\sin(\alpha_1)} = \frac{a}{\sin(\gamma_1)} \Rightarrow e = \frac{a \cdot \sin(\alpha_1)}{\sin(180° - \alpha_1 - \beta_1)}$$

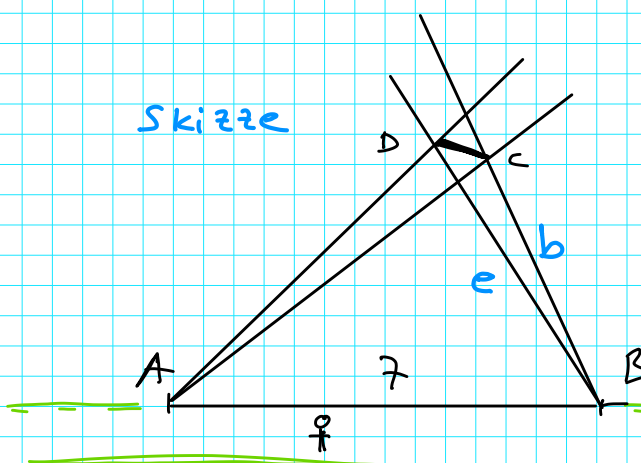
ΔBCD: $\quad x^2 = b^2 + e^2 - 2 \cdot b \cdot e \cdot \cos(\beta_2 - \beta_1)$

Beispiel

$a = 7.0$ $\quad \alpha_1 = \sphericalangle DAB = 45°$ $\quad \alpha_2 = \sphericalangle CAB = 40°$

$\beta_1 = \sphericalangle ABD = 55°$ $\quad \beta_2 = \sphericalangle ABC = 60°$

Skizze



$b \approx 4.57$

$e \approx 5.03$

$\Rightarrow x = \overline{CD} \approx 0.62$