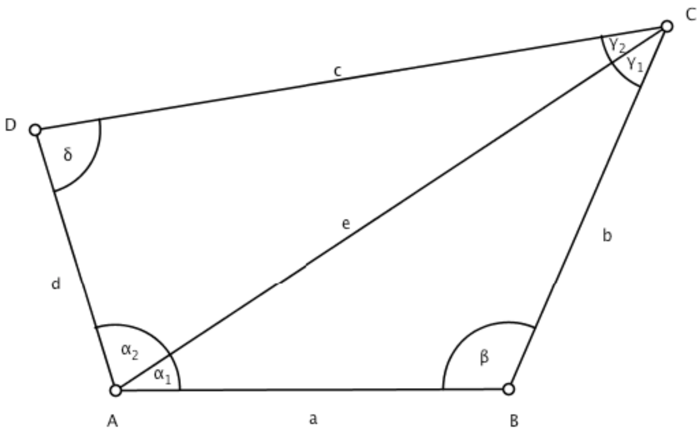
LÖSUNG ZU 782a:



$\frac{\sin(\gamma_1)}{a} = \frac{\sin(\beta)}{e}$

$\frac{\sin(\gamma_1)}{7} = \frac{\sin(101°)}{9{,}4}$ → $\sin(\gamma_1) = \frac{\sin(101°)}{9{,}4} \cdot 7$ → $\gamma_1 \approx 46{,}97°$

$\alpha_1 = 180° - (\beta + \gamma_1)$ → $\alpha_1 \approx 32{,}03°$

$\frac{b}{\sin(\alpha_1)} = \frac{e}{\sin(\beta)}$

$\frac{b}{\sin(32{,}03°)} = \frac{9{,}4}{\sin(101°)}$ → $b = \frac{9{,}4}{\sin(101°)} \cdot \sin(32{,}03°) \approx 5{,}08$ cm

$\frac{\sin(\gamma_2)}{d} = \frac{\sin(\delta)}{e}$

$\frac{\sin(\gamma_2)}{7{,}1} = \frac{\sin(69°)}{9{,}4}$ → $\sin(\gamma_2) = \frac{\sin(69°)}{9{,}4} \cdot 7{,}1$ → $\gamma_2 \approx 44{,}84°$

$\alpha_2 = 180° - (\gamma_2 + \delta)$ → $\alpha_2 \approx 66{,}16°$

$\frac{c}{\sin(\alpha_2)} = \frac{e}{\sin(\delta)}$

$\frac{c}{\sin(66{,}16°)} = \frac{9{,}4}{\sin(69°)}$ → $c = \frac{9{,}4}{\sin(69°)} \cdot \sin(66{,}16°) \approx 9{,}21$ cm

$u = a + b + c + d$ → $u \approx 28{,}39$ cm