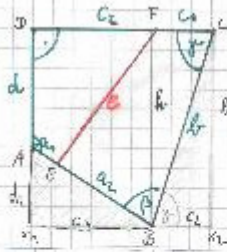


Übungsaufgabe Schnittpunkt S70/19

S. 62/19



geg.: $a_1 = 69,6 \text{ m}$ ges.: e, A
 $a_2 = 182,5 \text{ m}$
 $b = 280,0 \text{ m}$
 $c_1 = 65,7 \text{ m}$ $\alpha = 116,5^\circ$
 $c_2 = 195,7 \text{ m}$ $\beta = 72,5^\circ$
 $d = 168,1 \text{ m}$ $\gamma = 81,0^\circ$
 $\delta = 90^\circ$

$\square h_1 \quad \sin \gamma = \frac{h_1}{b} \Rightarrow h_1 = 280 \cdot \sin 81^\circ \quad \underline{h_1 = 276,55 \text{ m}}$

$\square d_2 \quad d_2 = h_1 - d \quad \underline{d_2 = 108,45 \text{ m}}$

$\square c_4 \quad b^2 = h_1^2 + c_4^2 \quad \underline{c_4 = 43,8 \text{ m}}$

$\square c_3 \quad c_3 = (c_1 + c_2) - c_4 \quad \underline{c_3 = 219,6 \text{ m}}$

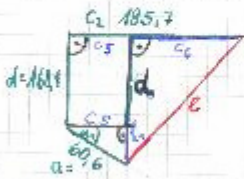
$A_{ABx_1} = \frac{1}{2} d_2 \cdot c_3 = \underline{11799,4 \text{ m}^2}$

$A_{ABx_2} = \frac{1}{2} h_1 \cdot c_4 = \underline{6056,5 \text{ m}^2}$

$A_{\square} = (c_1 + c_2) \cdot h_1 = \underline{72290,2 \text{ m}^2}$

$A = A_{\square} - A_{ABx_1} - A_{ABx_2} = 54434,4 \text{ m}^2 = \underline{544 \text{ a}}$

Ausgabefläche in A
 ↓



$\alpha_1 + \alpha_2 - 90^\circ = \underline{26,5^\circ}$

$\square c_5 \quad \cos \alpha_1 = \frac{c_5}{a_1} \quad \underline{c_5 = 54,2 \text{ m}}$

$\square h_2 \quad \sin \alpha_1 = \frac{h_2}{a_1} \quad \underline{h_2 = 27,0 \text{ m}}$

$c_6 = c_2 - c_5 = \underline{141,5 \text{ m}}$

$e^2 = c_6^2 + (d + h_2)^2 \Rightarrow \underline{e = 241 \text{ m}} \rightarrow \text{Waldweg}$