

S. 68/114a

geg.: $a = 5,6 \text{ cm}$

ges.: c

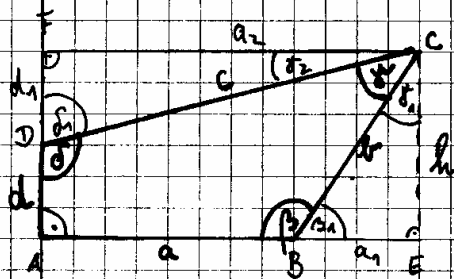
$b = 7,0 \text{ cm}$

d

$\beta = 130,0^\circ$

γ

$\delta = 105,0^\circ$



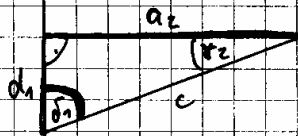
$\beta_1 = 180^\circ - \beta = 180^\circ - 130^\circ \Rightarrow \beta_1 = 50^\circ$

$\gamma_1 = 90^\circ - \beta_1 = 90^\circ - 50^\circ \Rightarrow \gamma_1 = 40^\circ$

$\cos \beta_1 = \frac{a_1}{b} \Rightarrow a_1 = b \cdot \cos \beta_1 = 7 \cdot \cos 50^\circ \quad a_1 = 4,50 \text{ cm}$

$h = \sqrt{b^2 - a_1^2} \quad h = \sqrt{7^2 - 4,5^2} \quad h = 5,36 \text{ cm}$

$\delta_1 = 180^\circ - \delta \quad \delta_1 = 180^\circ - 105^\circ \Rightarrow \delta_1 = 75^\circ$



$\gamma_2 = 180^\circ - \delta_1 - 90^\circ \quad \gamma_2 = 15^\circ$

$\gamma = 90^\circ - \gamma_1 - \gamma_2 = 90^\circ - 40^\circ - 15^\circ$

$\gamma = 35^\circ$

$a_2 = a + a_1 = 5,6 + 4,5 \quad a_2 = 10,1 \text{ cm}$

$\sin \delta_1 = \frac{a_2}{c} \Rightarrow c = \frac{a_2}{\sin \delta_1} = \frac{10,1}{\sin 75^\circ} \quad c = 10,46 \text{ cm}$

$d_1^2 = c^2 - a_2^2 \quad d_1 = \sqrt{10,46^2 - 10,1^2} \quad d_1 = 2,7 \text{ cm}$

$d = h - d_1 = 5,36 - 2,70 \quad d = 2,65 \text{ cm} \quad (2,7 \text{ cm})$