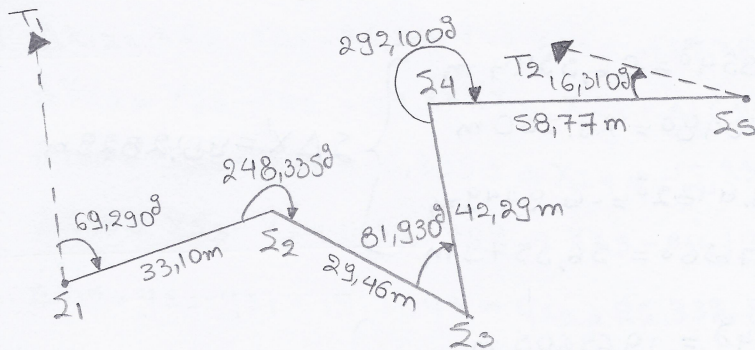




1. Υπολογισμός γωνιών διεύθυνσης αρχικής κ' τελικής πλευράς.

$$\alpha_{\tau 1} = \arctan \left| \frac{-16305,08 + 16316,85}{25313,12 - 25387,82} \right| = \arctan \left| \frac{11,77}{-74,7} \right| = 9,949^\circ \text{ άρα}$$

$$\alpha_{\tau 12} = 200 - \alpha_{\tau 1} \Rightarrow \alpha_{\tau 12} = 190,051^\circ$$

$$\alpha_{25 \tau 2} = \arctan \left| \frac{-16222,40 + 16199,76}{25386,95 - 25387,63} \right| = \arctan \left| \frac{-22,64}{-0,68} \right| = 98,088^\circ \text{ άρα}$$

$$\alpha_{25 \tau 2} = 200 + \alpha_{25 \tau 2} \text{ ή } \alpha_{25 \tau 2} = 298,088^\circ$$

3. $\theta_{\text{ε}}$

$$\alpha_{25 \tau 2} = \alpha_{\tau 12} + \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5 + 5 \cdot 200 - 400 = 298,016^\circ$$

2. Υπολογισμός γωνιακού εφέλατος

$$w = 298,088 - 298,016 = 0,072^\circ$$

και επειδή το γωνιακό εφέλα ανεξάρτητο του μεγέθους της γωνίας, είναι $w/5 = 0,0144^\circ$

3. Διόρθωση στις μετρούμενες γωνίες θλάξης.

$$\beta_1' = 69,290 + 0,0144 = 69,3044^\circ$$

$$\beta_4' = 292,100 + 0,0144 = 292,1144^\circ$$

$$\beta_2' = 248,335 + 0,0144 = 248,3494^\circ$$

$$\beta_5' = 16,310 + 0,0144 = 16,3244^\circ$$

$$\beta_3' = 81,930 + 0,0144 = 81,9444^\circ$$

4. Υπολογισμός νέων γωνιών διεύθυνσης.

$$\alpha_{12}' = \alpha_{\tau 12} + \beta_1' + 200 - 400 = 59,3554^\circ$$

$$\alpha_{23}' = \alpha_{12}' + \beta_2' + 200 - 400 = 107,7048^\circ$$

$$\alpha_{34}' = \alpha_{23}' + \beta_3' + 200 - 400 = 389,6492^\circ$$

$$\alpha_{45}' = \alpha_{34}' + \beta_4' + 200 - 400 = 81,7636^\circ$$

$$\alpha_{25 \tau 2}' = \alpha_{45}' + \beta_5' + 200 - 400 = 298,088^\circ \text{ (ΕΛΕΓΧΟΣ: } \checkmark \text{)}$$

5. Υπολογισμός προεωριών $\Delta X', \Delta Y'$

$$D_{12} = S_{12} \sin Z_{12} = 33,10 \cdot \sin 96,510^\circ = 33,050 \text{ m}$$

$$D_{23} = S_{23} \sin Z_{23} = 29,46 \cdot \sin 101,915^\circ = 29,46 \cdot \sin 101,915^\circ = 29,445 \text{ m}$$

$$D_{34} = S_{34} \sin Z_{34} = 42,29 \cdot \sin 100,935^\circ = 42,285 \text{ m}$$

$$D_{45} = S_{45} \sin Z_{45} = 58,77 \cdot \sin 101,580^\circ = 58,752 \text{ m}$$

$$\left. \begin{array}{l} D_{12} = 33,050 \text{ m} \\ D_{23} = 29,445 \text{ m} \\ D_{34} = 42,285 \text{ m} \\ D_{45} = 58,752 \text{ m} \end{array} \right\} S_D = 163,532 \text{ m}$$