$\Delta X_{12}' = D_{12} \sin\alpha_{2'1'2} = 33{,}050 \sin 59{,}3554^g = 26{,}5399\ m$

$\Delta X_{23}' = D_{23} \sin\alpha_{2'2'3} = 29{,}445 \sin 107{,}7048^g = 29{,}230\ m$

$\Delta X_{34}' = D_{34} \sin\alpha_{3'3'4} = 42{,}285 \sin 389{,}6492^g = -6{,}8449\ m$

$\Delta X_{45}' = D_{45} \sin\alpha_{4'4'5} = 58{,}752 \sin 81{,}7636^g = 56{,}3579\ m$

$\Big\} \Sigma\Delta X' = 105{,}2829\ m$

$\Delta Y_{12}' = D_{12} \cos\alpha_{2'1'2} = 33{,}050 \cos 59{,}3554^g = 19{,}6960\ m$

$\Delta Y_{23}' = D_{23} \cos\alpha_{2'2'3} = 29{,}445 \cos 107{,}7048^g = -3{,}5549\ m$

$\Delta Y_{34}' = D_{34} \cos\alpha_{3'3'4} = 42{,}285 \cos 389{,}6492^g = 41{,}7273\ m$

$\Delta Y_{45}' = D_{45} \cos\alpha_{4'4'5} = 58{,}752 \cos 81{,}7636^g = 16{,}6007\ m$

$\Big\} \Sigma\Delta Y' = 74{,}4691\ m$

6. Υπολογισμός γραμμικού σφάλματος W_X, W_Y.

Είναι $X_{5'5} = X_{21} + \Sigma\Delta X' = -16305{,}08 + 105{,}2829 = -16199{,}7971\ m$

$Y_{5'5} = Y_{21} + \Sigma\Delta Y' = 25313{,}12 + 74{,}4691 = 25387{,}5891\ m$

όπως, απ'το κ.Σ.Α. έχουμε $X_{55} = -16199{,}76$, $Y_{55} = 25387{,}63$ άρα

ΔΕΙ - ΕΣΤΙ

$W_X = X_{55} - X_{5'5} = -16199{,}76 + 16199{,}7971 = 0{,}037\ m.$

$W_Y = Y_{55} - Y_{5'5} = 25387{,}63 - 25387{,}5891 = 0{,}041\ m.$

$\Big\} W_S = \sqrt{W_X^2 + W_Y^2} = 0{,}055$

7. Υπολογισμός τελικών $\Delta X, \Delta Y$ μέσω των $\delta x, \delta y$.

$\delta x_{12} = \frac{W_X}{\Sigma D} D_{12} = \frac{0{,}037}{163{,}532} \cdot 33{,}050 = 7{,}48 \cdot 10^{-3}$

$\delta x_{23} = \frac{W_X}{\Sigma D} D_{23} = \frac{0{,}037}{163{,}532} \cdot 29{,}445 = 6{,}66 \cdot 10^{-3}$

$\delta x_{34} = \frac{W_X}{\Sigma D} D_{34} = \frac{0{,}037}{163{,}532} \cdot 42{,}285 = 9{,}57 \cdot 10^{-3}$

$\delta x_{45} = \frac{W_X}{\Sigma D} D_{45} = \frac{0{,}037}{163{,}532} \cdot 58{,}752 = 0{,}013.$

$\delta y_{12} = \frac{W_Y}{\Sigma D} D_{12} = \frac{0{,}041}{163{,}532} \cdot 33{,}050 = 8{,}29 \cdot 10^{-3}$

$\delta y_{23} = \frac{W_Y}{\Sigma D} D_{23} = \frac{0{,}041}{163{,}532} \cdot 29{,}445 = 7{,}38 \cdot 10^{-3}$

$\delta y_{34} = \frac{W_Y}{\Sigma D} D_{34} = \frac{0{,}041}{163{,}532} \cdot 42{,}285 = 0{,}0106$

$\delta y_{45} = \frac{W_Y}{\Sigma D} D_{45} = \frac{0{,}041}{163{,}532} \cdot 58{,}752 = 0{,}0147$

άρα $\Delta X_{12} = \Delta X_{12}' + \delta x_{12} = 26{,}5474\ m$

$\Delta X_{23} = \Delta X_{23}' + \delta x_{23} = 29{,}2367\ m$

$\Delta X_{34} = \Delta X_{34}' + \delta x_{34} = -6{,}8353\ m$

$\Delta X_{45} = \Delta X_{45}' + \delta x_{45} = 56{,}3709\ m$

$\Delta Y_{12} = \Delta Y_{12}' + \delta y_{12} = 19{,}7043\ m$

$\Delta Y_{23} = \Delta Y_{23}' + \delta y_{23} = -3{,}5475\ m$

$\Delta Y_{34} = \Delta Y_{34}' + \delta y_{34} = 41{,}7379\ m$

$\Delta Y_{45} = \Delta Y_{45}' + \delta y_{45} = 16{,}6154\ m$