

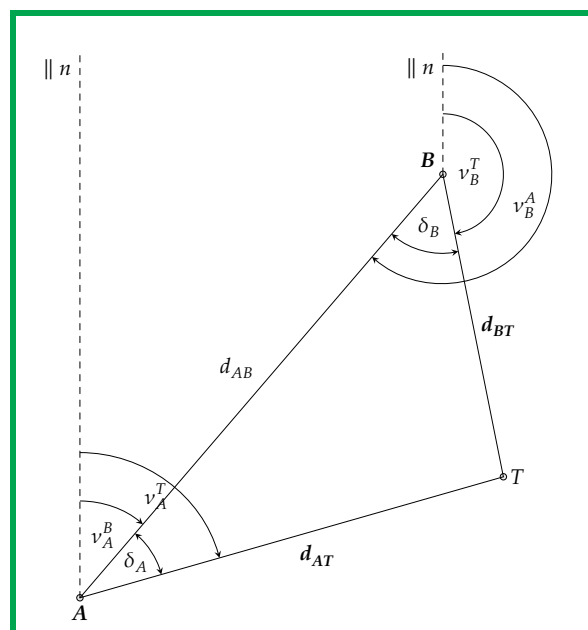
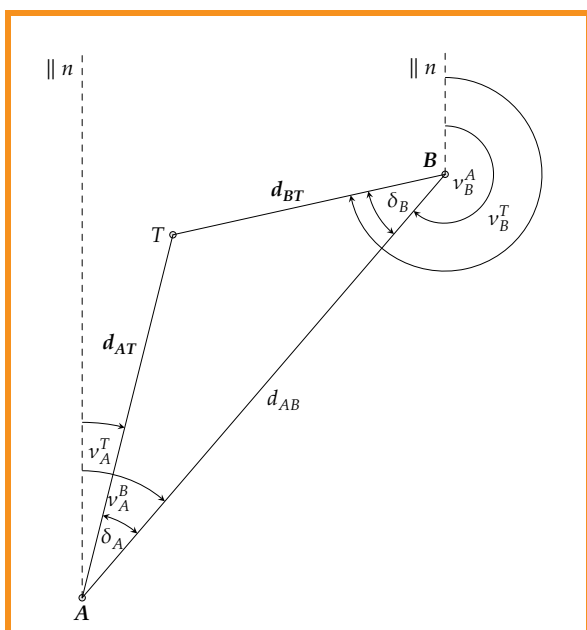
GEODETSKI RAČUNI – VAJE
VAJA 6: LOČNI PRESEK
2025/2026

LOČNI PRESEK

dano: $A(e_A, n_A), B(e_B, n_B)$

merjeno: d_{AT}, d_{BT}

iščemo: $T(e_T, n_T)$



i) Izračun dolžine d_{AB} :

$$d_{AB} = \sqrt{(\Delta e_A^B)^2 + (\Delta n_A^B)^2} \quad (1)$$

ii) Izračun smernega kota v_A^B in/ali v_B^A :

$$v_A^B = \arctan \frac{\Delta e_A^B}{\Delta n_A^B}$$

$$v_B^A = \arctan \frac{\Delta e_B^A}{\Delta n_B^A} \quad (2a, 2b)$$

iii) Izračun kotov δ_A in δ_B :

$$\delta_A = \arccos \frac{d_{AB}^2 + d_{AT}^2 - d_{BT}^2}{2 d_{AB} d_{AT}}$$

$$\delta_B = \arccos \frac{d_{AB}^2 + d_{BT}^2 - d_{AT}^2}{2 d_{AB} d_{BT}} \quad (3a, 3b)$$

Kontrola:

$$d_{AB} = d_{AT} \cos \delta_A + d_{BT} \cos \delta_B \quad (4)$$

iv) Izračun smernega kota ν_A^T in/ali ν_B^T :

Če nova točka T leži **levo** glede na zveznico AB (skica levo):

$$\nu_A^T = \nu_A^B - \delta_A (+360^\circ) \qquad \nu_B^T = \nu_B^A + \delta_B (-360^\circ) \qquad (5a, 5b)$$

Če nova točka T leži **desno** glede na zveznico AB (skica desno):

$$\nu_A^T = \nu_A^B + \delta_A (-360^\circ) \qquad \nu_B^T = \nu_B^A - \delta_B (+360^\circ) \qquad (6a, 6b)$$

v) Izračun koordinat točke T :

$$\Delta e_A^T = d_{AT} \sin \nu_A^T \qquad \Delta e_B^T = d_{BT} \sin \nu_B^T \qquad (7a, 7b)$$

$$\Delta n_A^T = d_{AT} \cos \nu_A^T \qquad \Delta n_B^T = d_{BT} \cos \nu_B^T \qquad (7c, 7d)$$

$$e'_T = e_A + \Delta e_A^T \qquad e''_T = e_B + \Delta e_B^T \qquad (8a, 8b)$$

$$n'_T = n_A + \Delta n_A^T \qquad n''_T = n_B + \Delta n_B^T \qquad (8c, 8d)$$

Kontrola:

$$e'_T = e''_T \qquad (9a)$$

$$n'_T = n''_T \qquad (9b)$$