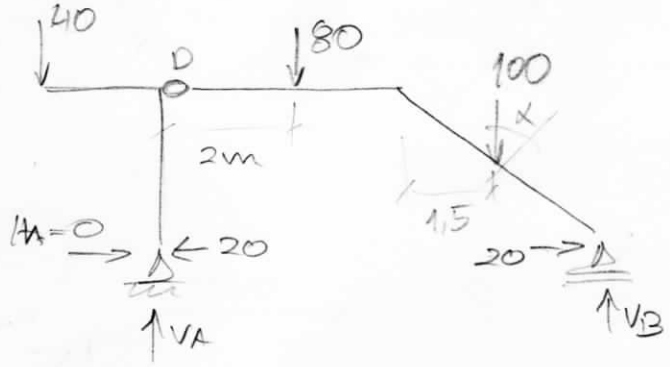
TE1-6a.4

$\rightarrow\oplus$ $\Sigma F_H = 0$ $\quad H_A = 0$ //

$\oplus\circlearrowleft \Sigma M_D^{esq} = 0$ $\quad -40\,kN \times 2m - N \times 4m = 0$

$N = -80\,kNm/4m = \underline{-20\,kN}$ // Escora //



$\oplus\circlearrowleft \Sigma M_D^{dir} = 0$

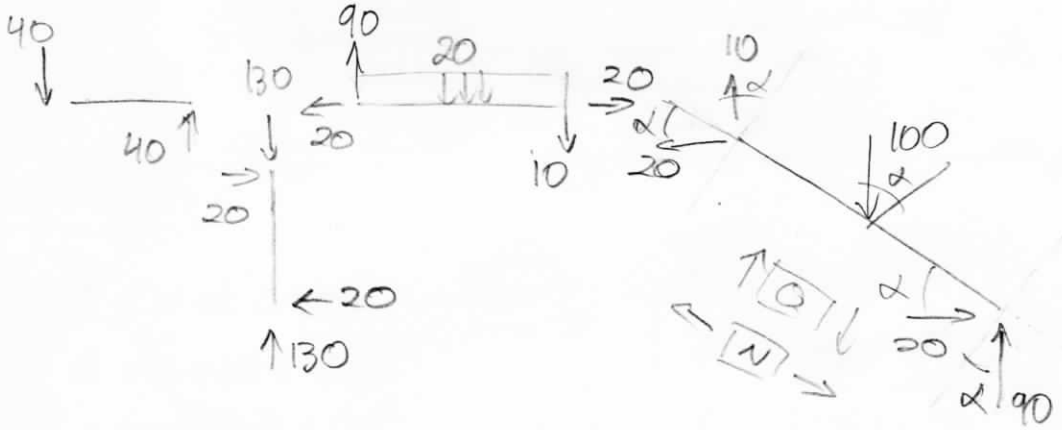
$80 \times 2 + 100 \times 5,5 - 20 \times 4 - V_B \times 7 = 0$

$V_B = \frac{1}{7}(160 + 550 - 80)$

$\underline{V_B = 90\,kN}$ //

$\oplus\uparrow \Sigma F_V = 0$ $\quad V_A + 90\,kN - 40\,kN - 80\,kN - 100 = 0$

$V_A = 220\,kN - 90\,kN = \underline{130\,kN}$ //



$\cos\alpha = 3/5$ $\quad \text{sen}\,\alpha = 4/5$

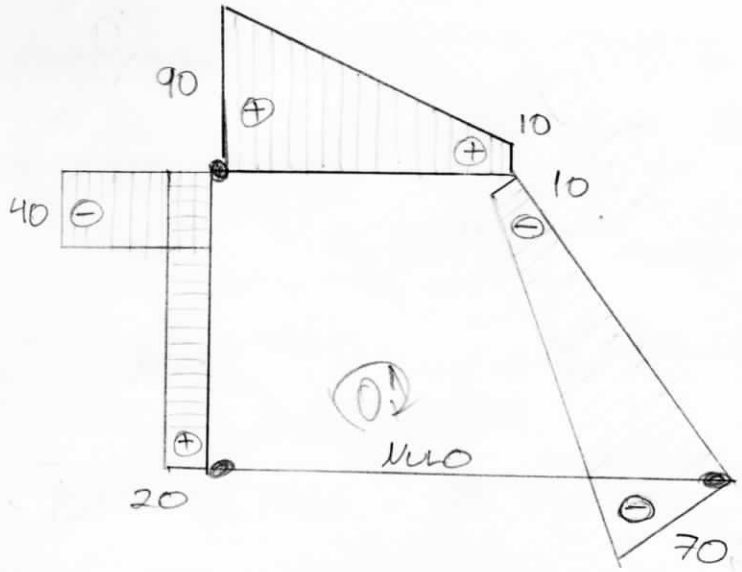
$N_E = 20 \times \cos\alpha + 10\,\text{sen}\,\alpha = 20 \times 3/5 + 10 \times 4/5 = 20\,kN$

$N_B = 20 \times \cos\alpha - 90\,\text{sen}\,\alpha = 20 \times 3/5 - 90 \times 4/5 = -60\,kN$

$Q_E = -20 \times \text{sen}\,\alpha + 10\cos\alpha = -20 \times 4/5 + 10 \times 3/5 = -10\,kN$

$Q_B = -20 \times \text{sen}\,\alpha - 90\cos\alpha = -20 \times 4/5 - 90 \times 3/5 = -70\,kN$

Q



N

