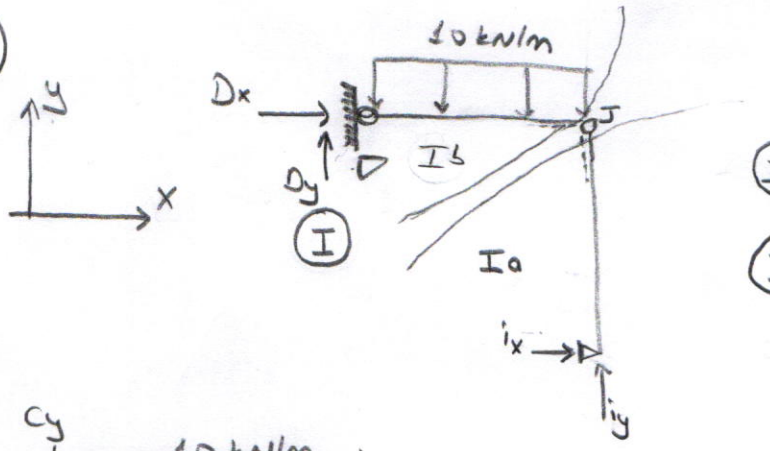
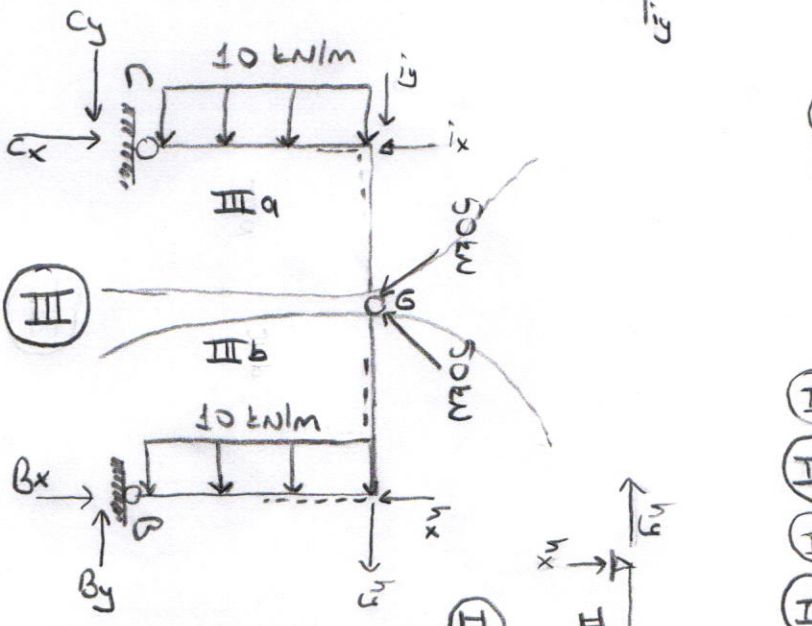
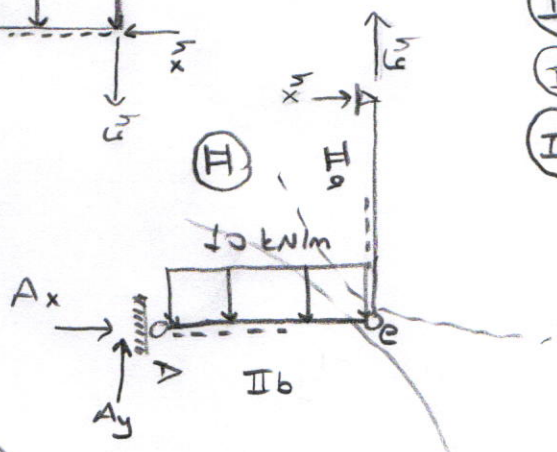
1a)







(Ib) sisteminde; $\Sigma M_J = 0 \rightarrow D_y = 25\ kN$

(I) " ; $\Sigma M_i = 0 \rightarrow D_x = 0$

$\Sigma f_x = 0 \rightarrow i_x = 0$

$\Sigma M_D = 0 \rightarrow i_y = 25\ kN$

(IIb) sisteminde; $\Sigma M_e = 0 \rightarrow A_y = 25\ kN$

(II) sisteminde; $\Sigma M_h = 0 \rightarrow A_x = 0$

$\Sigma f_x = 0 \rightarrow h_x = 0$

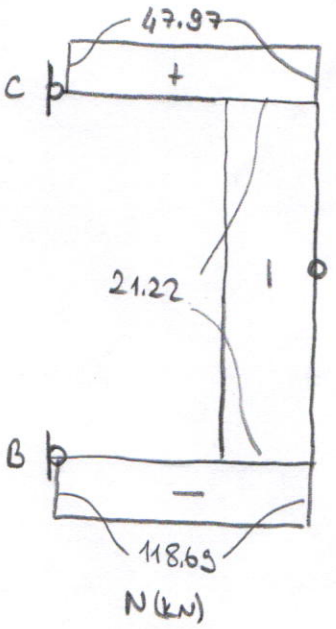
$\Sigma M_A = 0 \rightarrow h_y = 25\ kN$

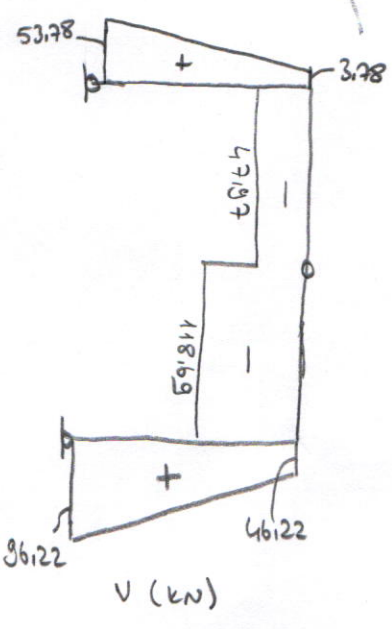
(III) sisteminde; $\Sigma M_B = 0 \rightarrow C_x = -47{,}97\ kN$

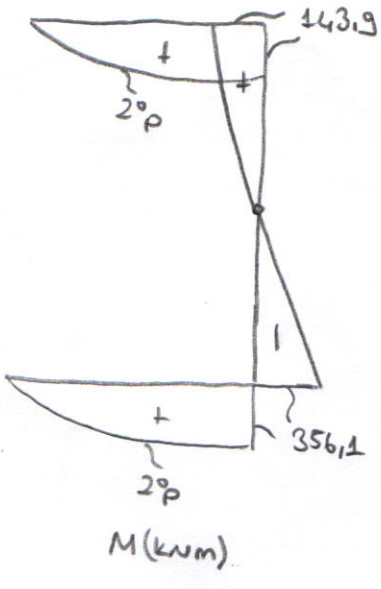
(IIIa) sisteminde; $\Sigma M_G = 0 \rightarrow C_y = -53{,}78\ kN$

(III) sisteminde; $\Sigma M_C = 0 \rightarrow B_x = 118{,}69\ kN$

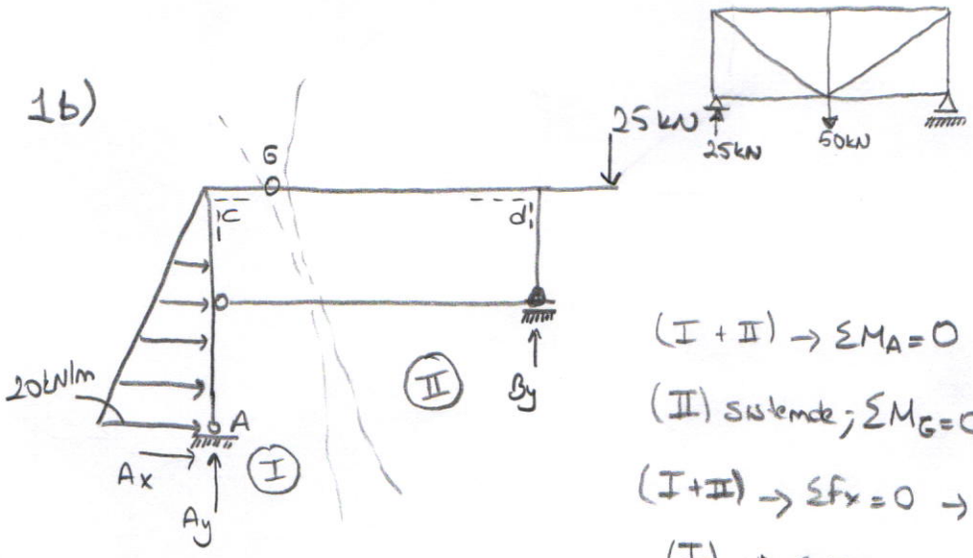
(IIIb) sisteminde; $\Sigma M_G = 0 \rightarrow B_y = 96{,}22\ kN$







1b)

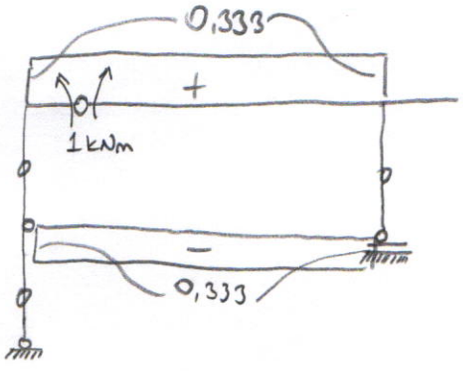


$(I+II) \rightarrow \Sigma M_A = 0 \rightarrow B_y = 60,556\ kN$

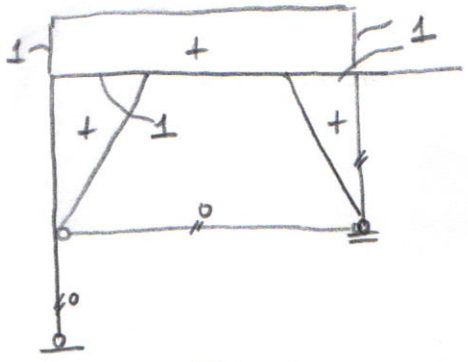
(II) sistemde; $\Sigma M_G = 0 \rightarrow N_{Gergi} = 78,15\ kN$

$(I+II) \rightarrow \Sigma f_x = 0 \rightarrow A_x = -90\ kN$

$(I) \rightarrow \Sigma M_G = 0 \rightarrow A_y = -35,55\ kN$



$(\bar{N})$ kN

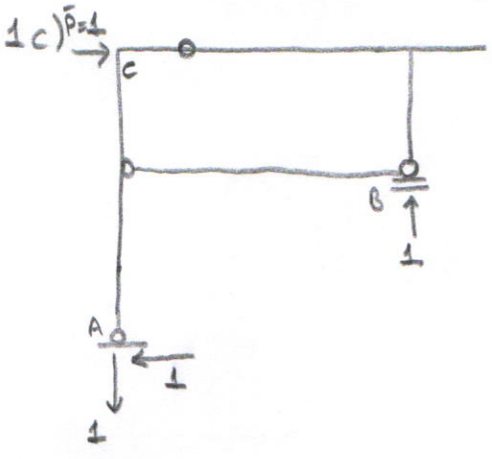


$(\bar{M})$ kNm

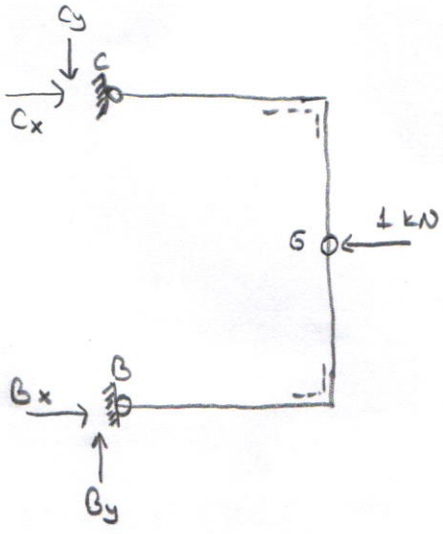
i) $\ell_G = \int \bar{N} \alpha_t t dx = -5,84 \times 10^{-4}$

ii) $\ell_G = \int \frac{\bar{M} \alpha_t \Delta t}{h} dx = 6,24 \times 10^{-3}$

1c)



$\delta_{cx} = 0,06m$

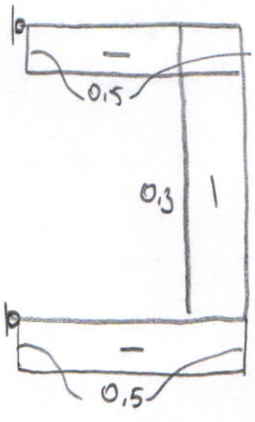


(III) sistemində; $\Sigma M_B = 0 \rightarrow C_x = 0{,}5\ kN$

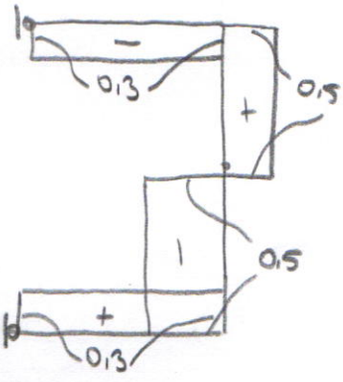
$\Sigma M_C = 0 \rightarrow B_x = 0{,}5\ kN$

(III a) paralasında; $\Sigma M_G = 0 \rightarrow C_y = 0{,}3\ kN$

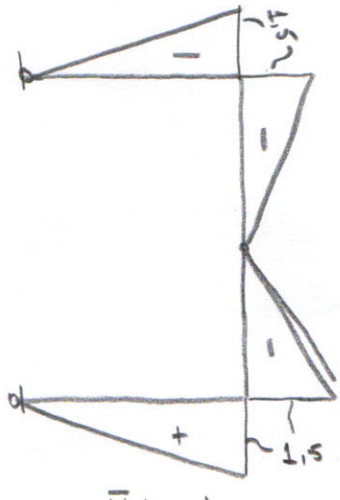
(III b) paralasında; $\Sigma M_G = 0 \rightarrow B_y = 0{,}3\ kN$



$\bar{N}$ (kN)



$\bar{V}$ (kN)



$\bar{M}$ (kNm)

$$\delta_{Gx} = \int \frac{M\bar{M}}{EI}dx + \int \frac{V\bar{V}}{GA'}dx + \int \frac{N\bar{N}}{EA}dx \rightarrow \delta_{Gx} = 0{,}058\ m$$