

Baudahl I+II Lösung der Sectionsprüfung

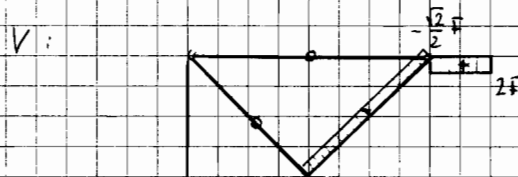
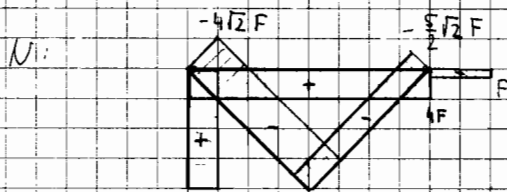
Herbst 05

1a) $A_v = -4F$

$A_H = 0$

$C_v = 6F$

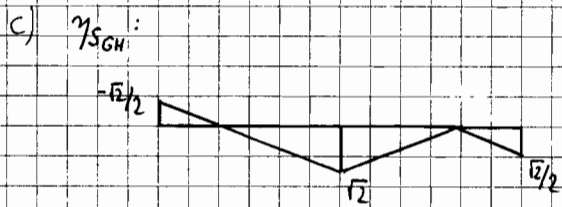
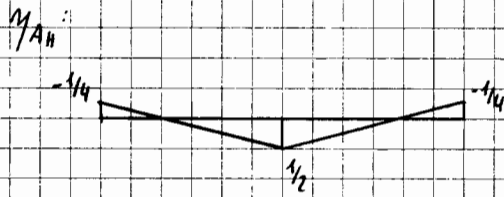
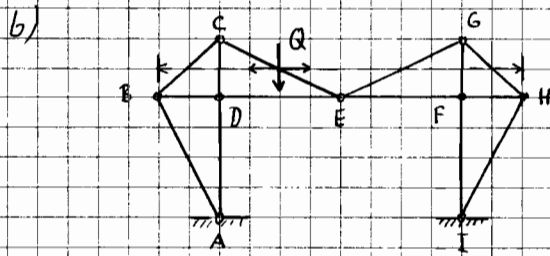
$C_H = F$



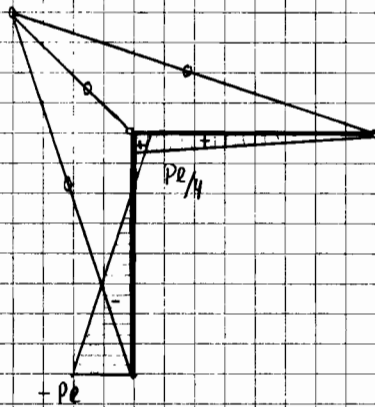
b)
$$\delta_{BH} = \frac{4(1+2\sqrt{2})Fl}{EA}$$

c) Keine Änderung der Auflagerkräfte inf. Temperaturänderung, da das System statisch bestimmt ist.

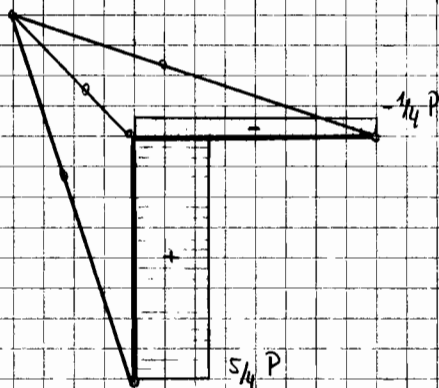
2a) $S_{GH} = \sqrt{2} Q$

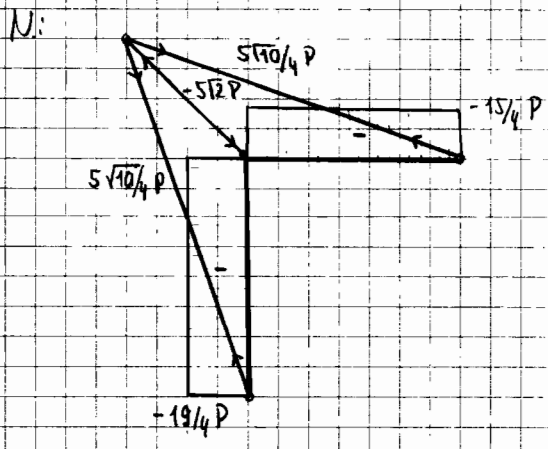


3a) M :



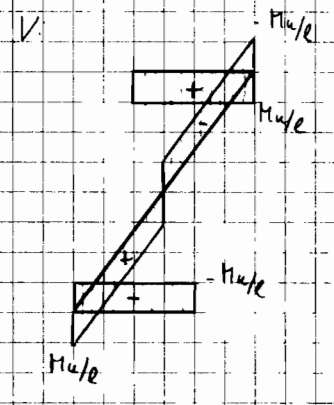
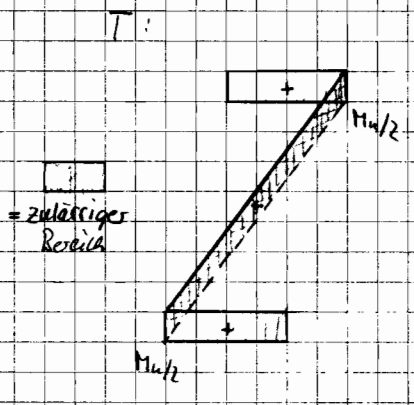
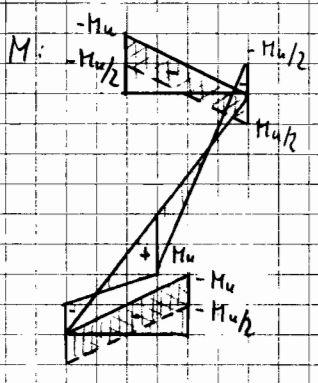
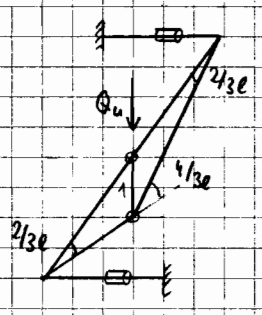
V :





b) $Q_2 = 2Q_1$

4) $Q_u = 2Mu/e$



5a) $w_1(q) = 22.1 \text{ mm}$ (keine Imperfektion w_0)

$w_{\text{tot}} = 24.7 \text{ mm}$

b) $F = 3486 \text{ kN}$

6) $M: \begin{matrix} q l^2 \\ 423 \end{matrix}$

