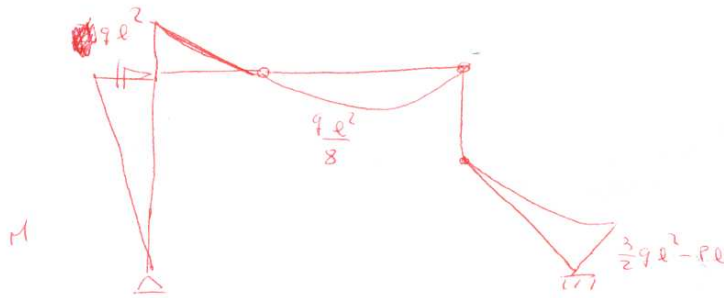


$$M = ql^2 + ql^2 - Pl = \frac{3}{2}ql^2 - Pl$$



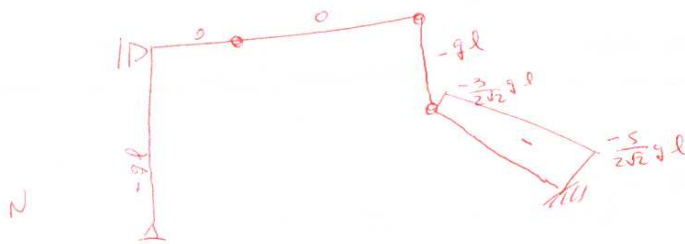
$$\frac{3}{2}ql^2 - Pl = ql^2$$

$$\frac{1}{2}ql^2 = Pl$$

$$P = \frac{ql}{2}$$

$$-\frac{3}{2}ql^2 + Pl = ql^2$$

$$P = \frac{5}{2}ql$$



$$N_c = -\frac{P}{\sqrt{2}} - \frac{ql}{\sqrt{2}} = -\frac{ql}{2\sqrt{2}} - \frac{ql}{\sqrt{2}} = -$$

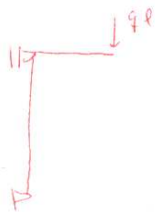
$$N_s = -\frac{P}{\sqrt{2}} - \frac{2ql}{\sqrt{2}} = -\frac{ql}{2\sqrt{2}} - \frac{2ql}{\sqrt{2}} = -$$

b) se adopte  $P = \frac{ql}{2}$

$$N_{max} = -\frac{5}{2\sqrt{2}}ql$$

$$M_{max} = ql^2$$

$$\Rightarrow \sigma_{max} = \frac{5}{2\sqrt{2}} \frac{ql}{A} + \frac{ql^2}{W} \leq 1400$$



$$f_c' = \frac{ql^3}{3EI}$$

$$\theta_c = \frac{ql^2}{2EI}$$

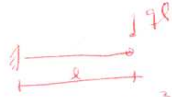
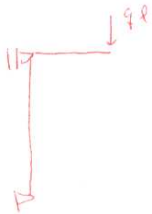
$$f_c^{tot} = \left( \frac{1}{3} + \frac{2}{3} \right) = \frac{ql^3}{EI}$$

2) se adopte  $P = \frac{q l}{2}$

$$N_{\max} = -\frac{5}{2\sqrt{2}} q l$$

$$M_{\max} = q l^2$$

$$\sigma_{\max} = \frac{5}{2\sqrt{2}} \frac{q l}{A} + \frac{q l^2}{W} \leq 1400$$

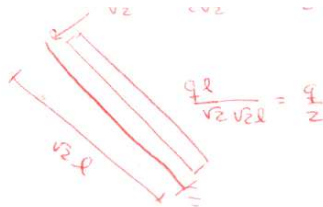
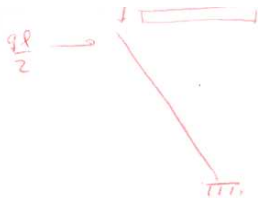


$$\downarrow f_c^1 = \frac{q l l^3}{3 E I}$$

$$\theta_B = \frac{q l^2 \cdot 2 l}{3 E I}$$

$$\downarrow f_c^2 = \theta_B l = \frac{2}{3} \frac{q l^4}{E I}$$

$$f_c^{\text{tot}} = \left( \frac{1}{3} + \frac{2}{3} \right) \frac{q l^4}{E I}$$



$$\left\langle f_c^1 = \frac{q l}{2\sqrt{2}} \frac{(\sqrt{2} l)^3}{3 E I} = \frac{2\sqrt{2}}{2\sqrt{2} \cdot 3} \frac{q l^4}{E I} = \frac{q l^4}{3 E I} \right.$$

$$\left. \left\langle f_c^2 = \frac{q (\sqrt{2} l)^2}{2 \cdot 8 E I} = \frac{4}{2 \cdot 8} \frac{q l^4}{E I} = \frac{q l^4}{4 E I} \right. \right\} 0$$

$$\Rightarrow f_c^{\text{tot}} = \left( \frac{1}{3} + \frac{1}{4} \right) \frac{q l^4}{E I} = \frac{7}{12} \frac{q l^4}{E I} \Rightarrow \downarrow f_c = \frac{7}{12\sqrt{2}} \frac{q l^4}{E}$$