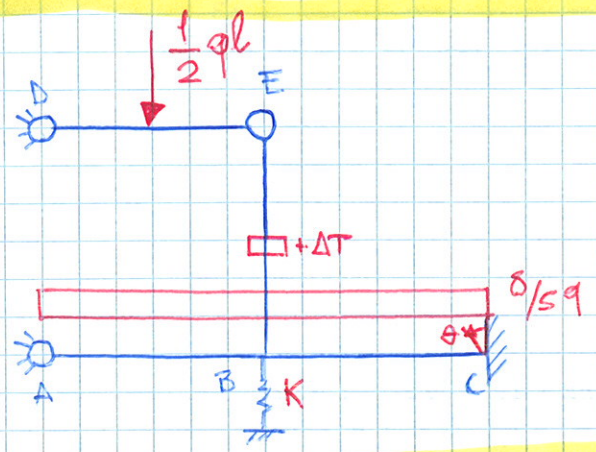
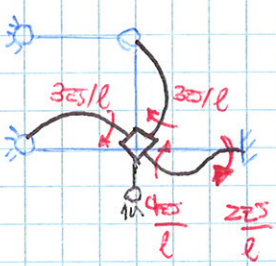


$\alpha\Delta T = 5/2\, ql^3/EJ$

$K = 39/10\, EJ/l^3$

$\vartheta = 159/20\, ql^3/EJ$

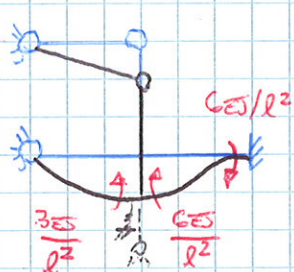
$\varphi_B = 1$



$$m_{BB} = \frac{10EJ}{l}$$

$$h_{MB} = -\frac{6EJ}{l^2} + \frac{3EJ}{l^2} = -\frac{3EJ}{l^2}$$

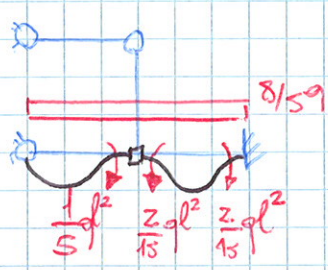
$M_1 = 1$



$$m_{B1} = \frac{3EJ}{l^2}$$

$$h_{M1} = -\frac{15EJ}{l^3} - \frac{39}{10}EJ/l^3 = -\frac{189}{10}EJ/l^3$$

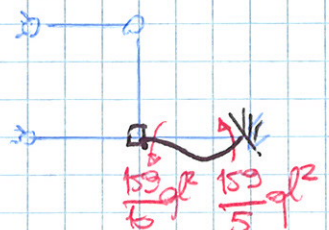
$q \neq 0$



$$m_{Bq} = \left(\frac{1}{5} + \frac{2}{15}\right) ql^2 = \frac{1}{15}\, ql^2$$

$$h_{Mq} = -\frac{4}{3}ql + ql = \frac{9}{5}ql$$

$\vartheta \neq 0$



$$m_{B\vartheta} = -\frac{159}{10}ql^2$$

$$h_{M\vartheta} = +\frac{477}{10}ql$$

$P \neq 0$

$$m_{BP} = 0$$

$$h_{MP} = \frac{ql}{4}$$

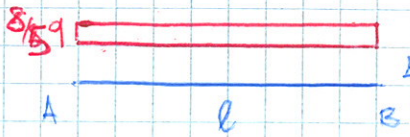
$$\frac{10EJ}{\ell}\varphi_B + \frac{3EJ}{\ell^2}M + \frac{1}{15}q\ell^2 - \frac{159}{10}q\ell^2 = 0 \quad \rightarrow \varphi_B = 5/6\, q\ell^3/EJ$$

$$M = 5/2\, q\ell^4/EJ$$

$$-\frac{3EJ}{\ell^2}\varphi_B - \frac{189}{10}M + \frac{3}{5}q\ell + \frac{477}{10}q\ell + \frac{q\ell}{4} = 0$$

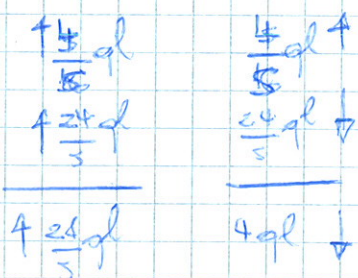
$$159/4\, q\ell^2$$

ASTA AB

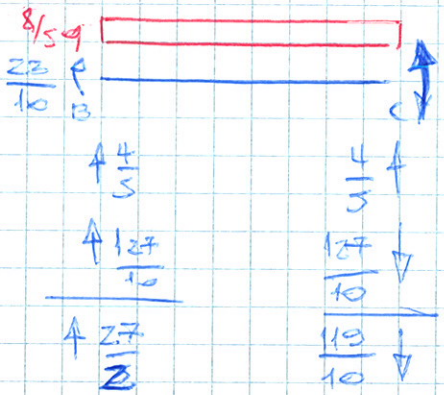


$$\curvearrowright^+ \quad M_B = \frac{5}{2}q\ell^2 - \frac{15}{2}q\ell^2 + \frac{1}{5}q\ell^2$$

$$= \frac{25+2-75}{10}q\ell^2 = -\frac{24}{5}q\ell^2$$



ASTA BC



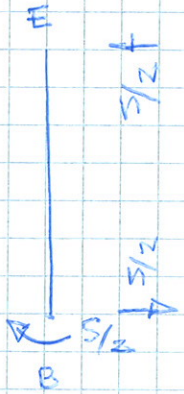
$$\curvearrowright^+ M_B = \frac{10}{3}q\ell^2 + 15q\ell^2 - \frac{2}{15}q\ell^2 - \frac{159}{5}q\ell^2$$

$$= \frac{100+450-4-477}{30}q\ell^2 = \frac{69}{30}q\ell^2 = \frac{23}{10}q\ell^2$$

$$\curvearrowright^+ M_C = \frac{5}{3}q\ell^2 + 15q\ell^2 + \frac{2}{15}q\ell^2 - \frac{159}{15}q\ell^2$$

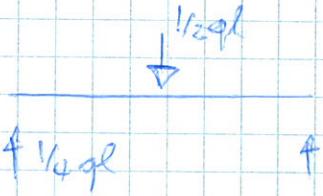
$$= \frac{50+450+4-477}{30}q\ell^2 = \frac{27}{10}q\ell^2 - 15q\ell^2$$

ASTA BE

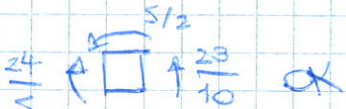


$$\curvearrowright^+ M_B = \frac{5}{2}q\ell^2$$

ASTA DE

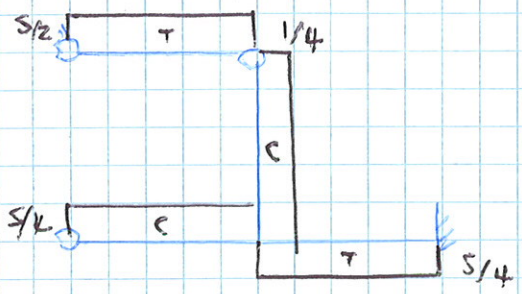


NODO B

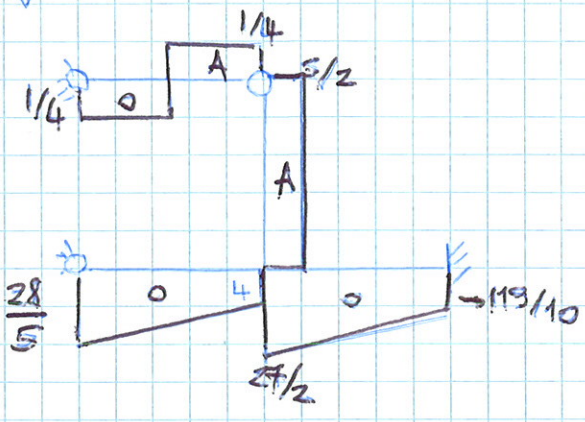


OK

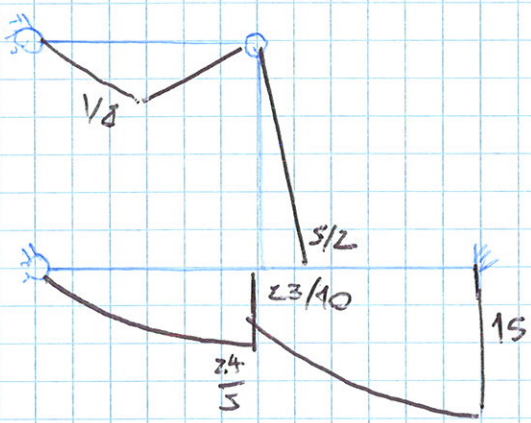
N



V



M



DEFORMATA