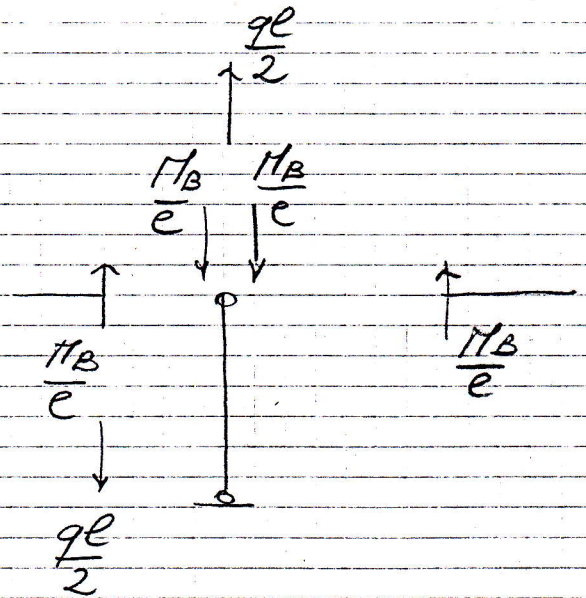
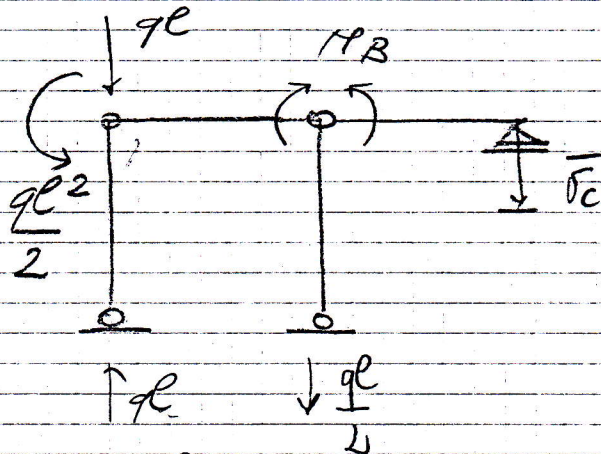
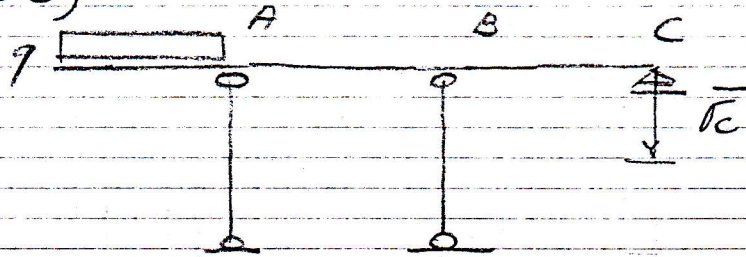


3c)

11



$$\phi_B^S = \frac{1}{EA} \cdot \frac{1}{l} \left(\frac{3}{2} q l - \frac{M_B}{e} \right) + \frac{1}{EA} \cdot \frac{1}{l} \left(\frac{q l}{2} - \frac{2 M_B}{e} \right) - \frac{q l^2}{2} \cdot \frac{l}{6EI} - \frac{M_B l}{3EI} =$$

$$= \phi_B^D = -\frac{\bar{v}_C}{e} - \frac{1}{EA} \cdot \frac{1}{l} \left(\frac{q l}{2} - \frac{2 M_B}{e} \right) + \frac{M_B l}{3EI}$$

$$\frac{2 M_B}{lEA} + \frac{2 M_B}{lEA} + \frac{M_B}{lEA} + \frac{M_B l}{3EI} + \frac{M_B l}{3EI} =$$

$$= \frac{3 q l}{2EA} + \frac{q l}{2EA} + \frac{q l}{2EA} - \frac{q l^3}{12EI} + \frac{\bar{v}_C}{e}$$

$$M_B \left(\frac{5}{lEA} + \frac{2 l}{3EI} \right) = \frac{5}{2} \frac{q l}{EA} - \frac{q l^3}{12EI} + \frac{\bar{v}_C}{e} E$$

$$= \frac{q l}{2} \left(\frac{5}{EA} - \frac{l^2}{6EI} \right) + \frac{\bar{v}_C}{e} E$$

$$\frac{1}{M_B} = \frac{\frac{q l}{2} \left(\frac{5}{EA} - \frac{l^2}{6EI} \right) + \frac{\bar{v}_C}{e} E}{\frac{5}{lEA} + \frac{2 l}{3EI}}$$

$$\textcircled{+} \quad \frac{5}{lEA} + \frac{2 l}{3EI}$$