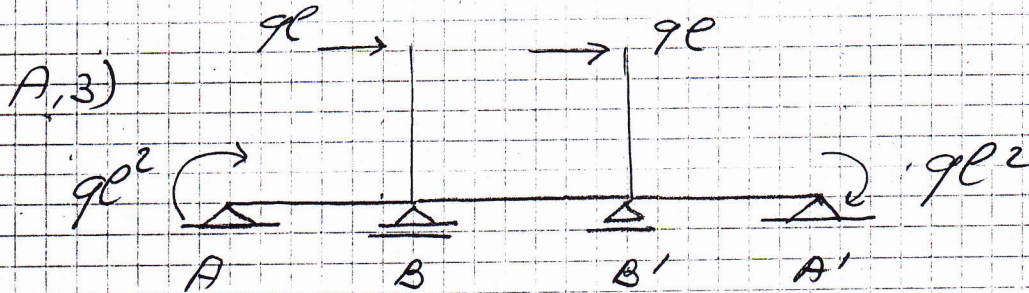


$$U_A = \sum_{i=1}^4 U_A^{(i)} = \frac{ql^4}{6EI} + \frac{3ql^2}{EA} + \frac{ql^4}{6EI} + \frac{ql^4}{8EI} =$$

$$= \frac{11ql^4}{24EI} + \frac{3ql^2}{EA}$$

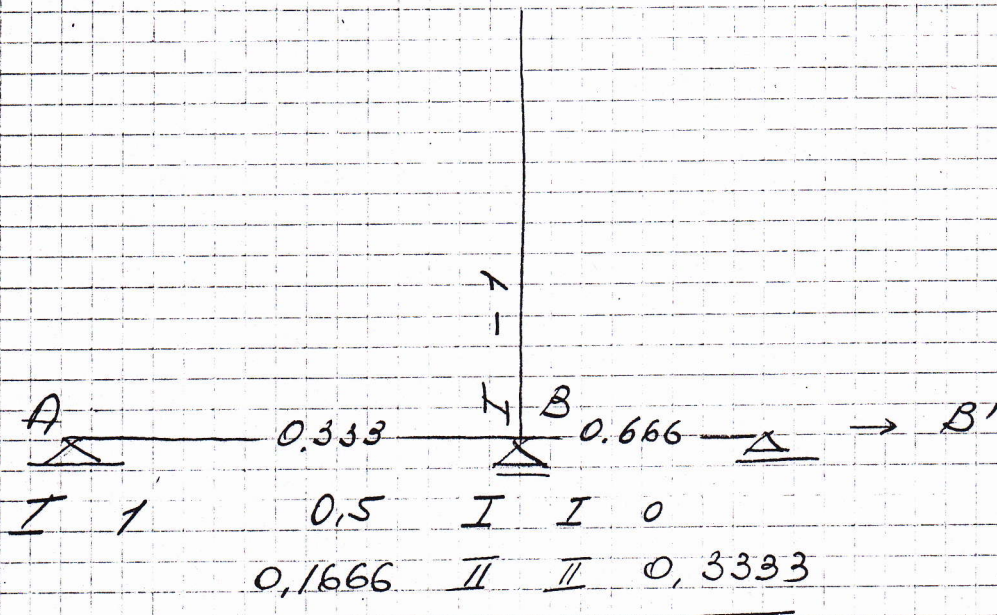
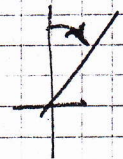


$$\varphi_B = \varphi_{B'}$$

$$\sum M_B = -ql^2 + \frac{ql^2}{2} - \frac{3EI}{e} \varphi_B - \frac{4EI}{e} \varphi_B - \frac{2EI}{e} \varphi_B =$$

$$= -\frac{ql^2}{2} - \frac{9EI}{e} \varphi_B = 0$$

$$\varphi_B = -\frac{ql^2}{2} \frac{e}{9EI} = -\frac{ql^3}{18EI} = -0,0555 \frac{ql^3}{EI}$$



$$\varphi_B = \frac{0,1666 e ql^2}{3EI} = 0,0555 \frac{ql^3}{EI}$$

