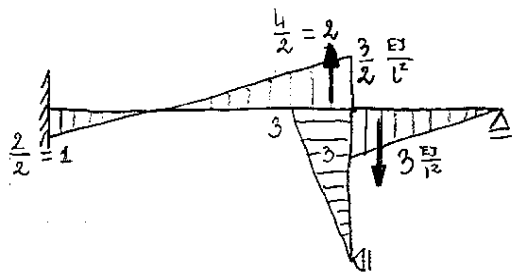
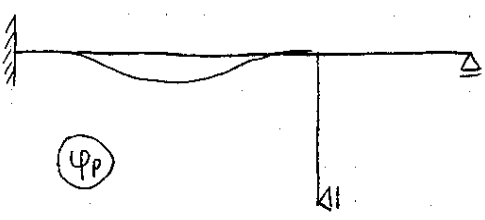
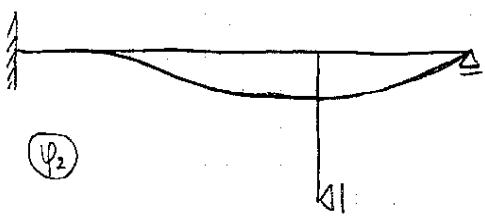
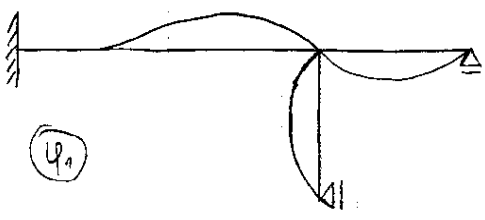
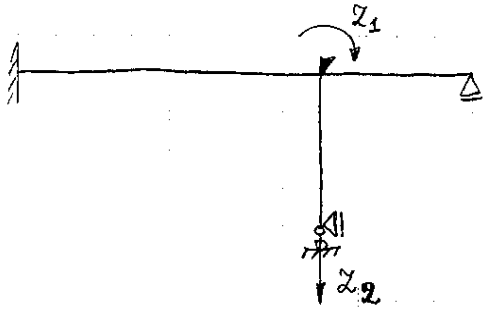
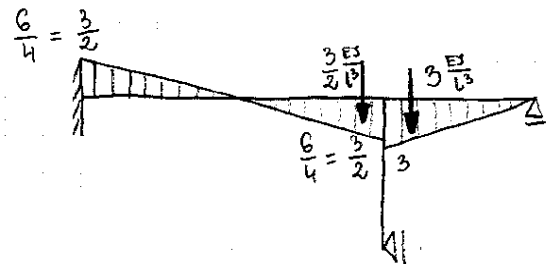


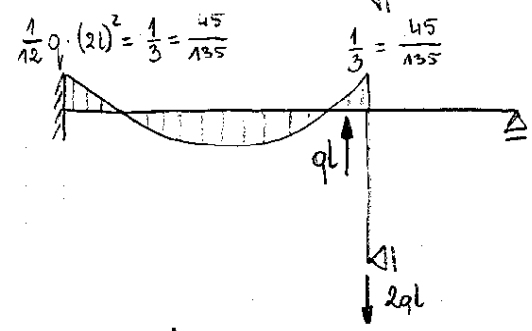
$$n_p = 2$$



$$M_1 \left[ \frac{EJ}{L} \right]$$



$$M_2 \left[ \frac{EJ}{L^2} \right]$$



$$M_p \left[ ql^2 \right]$$

$$N_{11} = (3 + 3 + 2) \frac{EJ}{L} = 8 \frac{EJ}{L}$$

$$N_{12} = (3 - \frac{3}{2}) \frac{EJ}{L^2} = \frac{3}{2} \frac{EJ}{L^2}$$

$$N_{21} = (3 - \frac{3}{2}) \frac{EJ}{L^2} = \frac{3}{2} \frac{EJ}{L^2}$$

$$N_{22} = (3 + \frac{3}{2}) \frac{EJ}{L^3} = \frac{9}{2} \frac{EJ}{L^3}$$

$$R_{1P} = \frac{1}{3} ql^2$$

$$R_{2P} = (-ql - 2ql) = -3ql$$

$$\begin{cases} N_{11} Z_1 + N_{12} Z_2 + R_{1P} = 0 \\ N_{21} Z_1 + N_{22} Z_2 + R_{2P} = 0 \end{cases}$$

$$\Rightarrow \begin{cases} 8 \frac{EJ}{L} Z_1 + \frac{3}{2} \frac{EJ}{L^2} Z_2 + \frac{1}{3} ql^2 = 0 / \cdot (-3) \\ \frac{3}{2} \frac{EJ}{L^2} Z_1 + \frac{9}{2} \frac{EJ}{L^3} Z_2 - 3ql = 0 / \cdot \frac{L^2}{EJ} \end{cases}$$

$$\begin{cases} -24 \cdot Z_1 - \frac{9}{2l} \cdot Z_2 - 1 \frac{ql^3}{EJ} = 0 \\ \frac{3}{2} \cdot Z_1 + \frac{9}{2l} \cdot Z_2 - 3 \frac{ql^3}{EJ} = 0 \end{cases}$$

$$-\frac{45}{2} \cdot Z_1 = 4 \frac{ql^3}{EJ}$$

$$Z_1 = -\frac{8}{45} \frac{ql^3}{EJ} = -\frac{24}{135} \frac{ql^3}{EJ}$$

$$\frac{3}{2} \frac{EJ}{l^2} \cdot \left(-\frac{8}{45} \frac{ql^3}{EJ}\right) + \frac{9}{2} \frac{EJ}{l^3} \cdot Z_2 = 3ql$$

$$-\frac{4}{15} ql + \frac{9}{2} \frac{EJ}{l^3} \cdot Z_2 = 3ql$$

$$\frac{9}{2} \frac{EJ}{l^3} Z_2 = \frac{49}{15} ql$$

$$Z_2 = \frac{49}{15} ql \cdot \frac{2}{9} \frac{l^3}{EJ} = \frac{98}{135} \frac{ql^4}{EJ}$$

