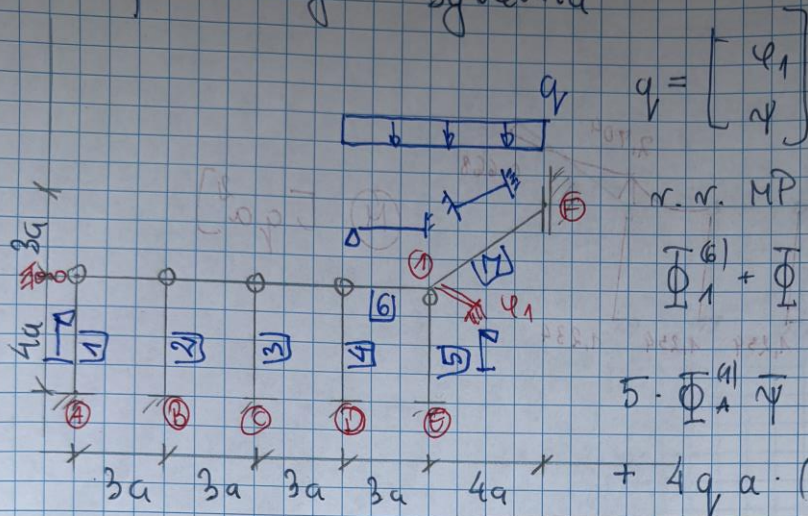


MK 1 r.a. 2025/26 Kolokwium 2.2

Sch. połączonej - symetria



$$q = \begin{bmatrix} q_1 \\ q_2 \end{bmatrix}$$

r. r. MP

$$\Phi_1^{(6)} + \Phi_1^{(7)} = 0 \quad (1)$$

$$5 \cdot \Phi_1^{(1)} \bar{\Psi} + (\Phi_1^{(7)} + \Phi_F^{(7)}) \left(-\frac{4}{3} \bar{\Psi} \right) + 4q_1 a \cdot \left(-\frac{4}{3} \bar{\Psi} \cdot 2a \right) = 0 \quad (2)$$

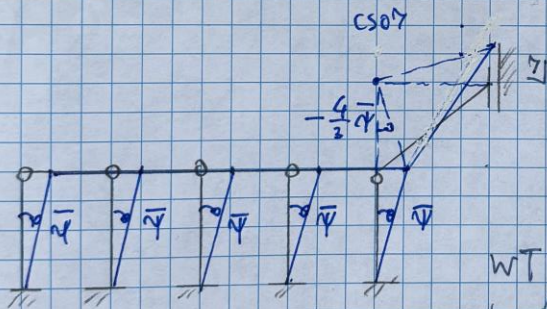
P. P.

momenty wyśrównie

$$\Phi_1^{(6)} = \frac{q(3a)^2}{8} = \frac{9}{8} qa^2$$

$$\Phi_1^{(7)} = -\frac{q(4a)^2}{12} = -\frac{4}{3} qa^2$$

$$\Phi_F^{(7)} = \frac{4}{3} qa^2$$



$$\Phi_1^{(6)} = \frac{3EY}{8a} [\varphi_1] + \frac{9}{8} qa^2$$

$$\Phi_1^{(7)} = \frac{3EY}{4a} [-\bar{\Psi}] = \frac{EY}{a} \left[-\frac{3}{4} \bar{\Psi} \right] \quad (-5)$$

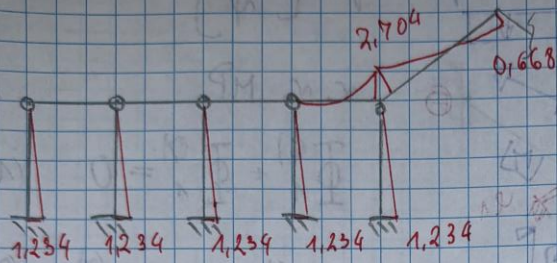
$$\Phi_1^{(1)} = \frac{2EY}{5a} \left[2\varphi_1 - 3\left(-\frac{4}{3}\bar{\Psi}\right) \right] - \frac{4}{3} qa^2 = \frac{EY}{a} \left[\frac{4}{5}\varphi_1 + \frac{8}{5}\bar{\Psi} \right] - \frac{4}{3} qa^2$$

$$\Phi_F^{(7)} = \frac{EY}{a} \left[\frac{2}{5}\varphi_1 + \frac{8}{5}\bar{\Psi} \right] + \frac{4}{3} qa^2 \quad \left(\frac{4}{3} \right)$$

$$\frac{EY}{a} \begin{bmatrix} 1.8 & 1.6 \\ 1.6 & 8.017 \end{bmatrix} \begin{bmatrix} \varphi_1 \\ \bar{\Psi} \end{bmatrix} = \begin{bmatrix} 0.208 \\ -10.67 \end{bmatrix} qa^2$$

$$\varphi_1 = 1.579 \frac{qa^3}{EY}$$

$$\bar{\Psi} = -1.646 \frac{qa^3}{EY}$$



(M) [qa²]

1000

1000

1000

1000

1000

1000

1000

(1-)

(A)
(B)