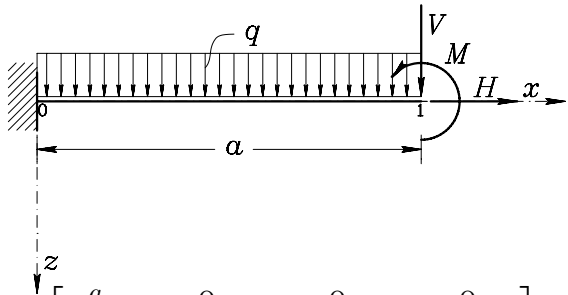


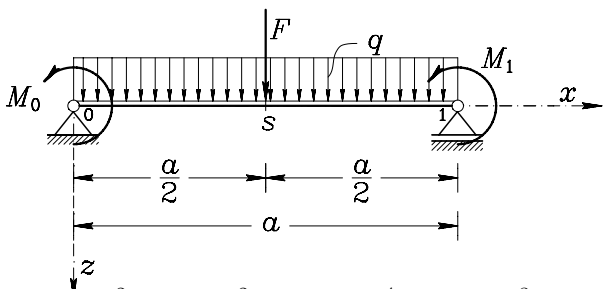
# PODAJNOSTNE MATRIKE ZA KONZOLO IN PROSTOLEŽEČI NOSILEC

## 1. KONZOLA



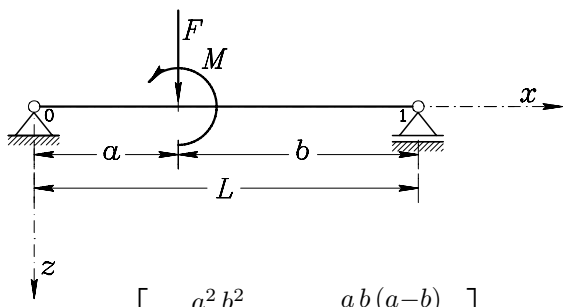
$$\begin{bmatrix} u_1 \\ w_1 \\ \omega_{y1} \end{bmatrix} = \begin{bmatrix} \frac{a}{E A_x} & 0 & 0 & 0 \\ 0 & \frac{a^3}{3 E I_y} & -\frac{a^2}{2 E I_y} & \frac{a^4}{8 E I_y} \\ 0 & -\frac{a^2}{2 E I_y} & \frac{a}{E I_y} & -\frac{a^3}{6 E I_y} \end{bmatrix} \cdot \begin{bmatrix} H \\ V \\ M \\ q \end{bmatrix}$$

## 2. PROSTOLEŽEČI NOSILEC (1. obtežni primer)



$$\begin{bmatrix} w_s \\ \omega_{ys} \\ \omega_{y0} \\ \omega_{y1} \end{bmatrix} = \begin{bmatrix} \frac{a^2}{16 E I_y} & \frac{a^2}{16 E I_y} & \frac{5 a^4}{384 E I_y} & \frac{a^3}{48 E I_y} \\ -\frac{a}{24 E I_y} & \frac{a}{24 E I_y} & 0 & 0 \\ \frac{a}{3 E I_y} & -\frac{a}{6 E I_y} & -\frac{a^3}{24 E I_y} & -\frac{a^2}{16 E I_y} \\ -\frac{a}{6 E I_y} & \frac{a}{3 E I_y} & \frac{a^3}{24 E I_y} & \frac{a^2}{16 E I_y} \end{bmatrix} \cdot \begin{bmatrix} M_0 \\ M_1 \\ q \\ F \end{bmatrix}$$

## 3. PROSTOLEŽEČI NOSILEC (2. obtežni primer)



$$\begin{bmatrix} w(a) \\ \omega_y(a) \\ \omega_{y0} \\ \omega_{y1} \end{bmatrix} = \begin{bmatrix} \frac{a^2 b^2}{3 L E I_y} & \frac{a b (a-b)}{3 L E I_y} \\ \frac{a b (a-b)}{3 L E I_y} & \frac{(a^2 - a b + b^2)}{3 L E I_y} \\ -\frac{a b (L+b)}{6 L E I_y} & -\frac{(L^2 - 3 b^2)}{6 L E I_y} \\ \frac{a b (L+a)}{6 L E I_y} & -\frac{(L^2 - 3 a^2)}{6 L E I_y} \end{bmatrix} \cdot \begin{bmatrix} F \\ M \end{bmatrix}$$