

Grupa A

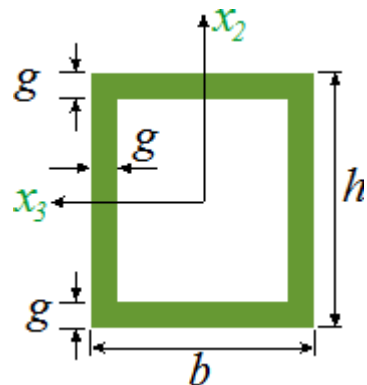
Zad. 2

$$E := 23 \text{ GPa} \quad L := 5 \text{ m} \quad b := 8 \text{ cm} \quad h := 15 \text{ cm} \quad g := 3 \text{ cm}$$

$$\text{Sch} := 3$$

$$z := z_{\text{Sch}} = 4.493409$$

$$z_s := \begin{pmatrix} \frac{\pi}{2} \\ \pi \\ 4.493409 \\ 2\pi \end{pmatrix}$$



$$b_1 := b - 2g \quad h_1 := h - 2g$$

$$J_3 := \frac{b \cdot h^3}{12} - \frac{b_1 \cdot h_1^3}{12} = 2128.500000 \cdot \text{cm}^4$$

$$J_2 := \frac{h \cdot b^3}{12} - \frac{h_1 \cdot b_1^3}{12} = 634.000000 \cdot \text{cm}^4$$

$$J := \min(J_2, J_3) = 634.000000 \cdot \text{cm}^4$$

$$P_{kr} := \frac{z^2 E \cdot J}{L^2} = 117.77 \cdot \text{kN}$$

Sch = 1



Sch = 2



Sch = 3



Sch = 4

