

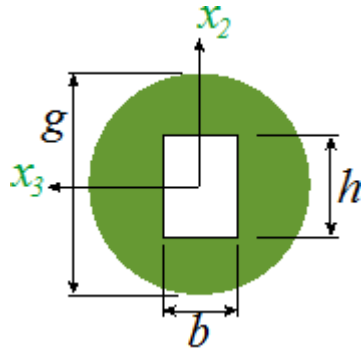
Grupa A

Zad. 2

$$E := 27 \text{ GPa} \quad \underline{L} := 7 \text{ m} \quad b := 5 \text{ cm} \quad h := 7 \text{ cm} \quad \underline{g} := 23 \text{ cm}$$

$$\text{Sch} := 4 \quad z := z_{\text{Sch}} = 6.283185$$

$$z_{\text{S}} := \begin{pmatrix} \frac{\pi}{2} \\ \pi \\ 4.493409 \\ 2\pi \end{pmatrix}$$



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

$$J_3 := \frac{-b \cdot h^3}{12} + \frac{\pi g^4}{64} = 1.359375 \times 10^4 \cdot \text{cm}^4$$

$$J_2 := \frac{-b^3 \cdot h}{12} + \frac{\pi g^4}{64} = 1.366375 \times 10^4 \cdot \text{cm}^4$$

$$\underline{J} := \min(J_2, J_3) = 13593.746299 \cdot \text{cm}^4$$

$$P_{\text{kr}} := \frac{z^2 E \cdot J}{L^2} = 2957.10 \cdot \text{kN}$$

