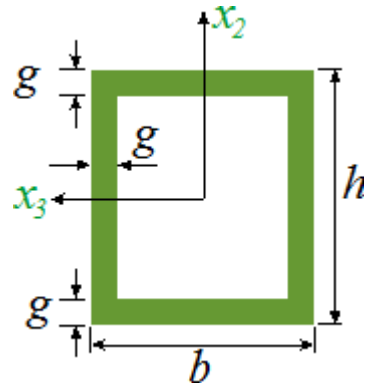


Grupa A1

Zad. 2

$E := 13 \text{ GPa}$ $L := 7 \text{ m}$ $b := 12 \text{ cm}$ $h := 15 \text{ cm}$ $g := 3 \text{ cm}$ $Sch := 3$ $z = 4.493409$



$$b1 := b - 2g \quad h1 := h - 2 \cdot g$$

$$J3 := \frac{b \cdot h^3}{12} - \frac{b1 \cdot h1^3}{12} = 3010.500000 \cdot \text{cm}^4$$

$$J2 := \frac{h \cdot b^3}{12} - \frac{h1 \cdot b1^3}{12} = 1998.000000 \cdot \text{cm}^4$$

$$J := \min(J2, J3) = 1998.000000 \cdot \text{cm}^4$$

$$P_{kr} := \frac{z^2 E \cdot J}{L^2} = 107.03 \cdot \text{kN}$$

