

Zad. 2

$$E := 7 \text{ GPa}$$

$$L := 3 \text{ m}$$

$$b := 11 \text{ cm}$$

$$h := 15 \text{ cm}$$

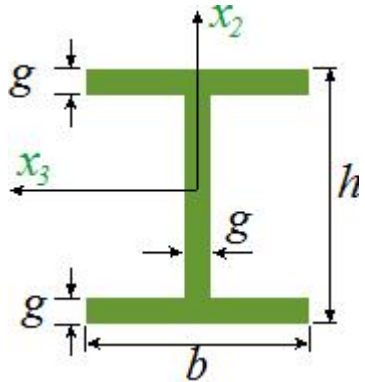
$$g := 1 \text{ cm}$$

$$mb := \begin{pmatrix} 2 \\ 1 \\ 0.699156 \\ 0.5 \end{pmatrix}$$

$$Sch := 1$$

$$\mu := mb_{Sch}$$

$$Lw := \mu \cdot L$$



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

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

$$J2 := \frac{g \cdot b^3}{6} + \frac{h1 \cdot g^3}{12}$$

$$J := \min(J2, J3) = 222.916667 \cdot \text{cm}^4$$

$$P_{kr} := \frac{\pi^2 E \cdot J}{Lw^2} = 4.278 \cdot \text{kN}$$

