Zad. 2

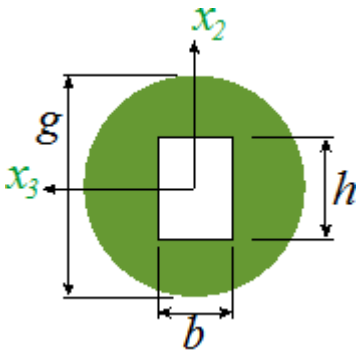
$E := 17GPa$ $L := 3m$ $b := 5cm$ $h := 7cm$ $g := 15cm$

$Sch := 1$ $\mu := mb_{Sch}$ $Lw := \mu \cdot L$

$$mb := \begin{pmatrix} 2 \\ 1 \\ \pi \\ \overline{z} \\ 0.5 \end{pmatrix}$$

$z := 4.493409$

$mb_3 = 0.699156$



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

$$J3 := \frac{-b \cdot h^3}{12} + \frac{\pi g^4}{64} = 2.342132 \times 10^3 \cdot cm^4$$

$$J2 := \frac{-b^3 \cdot h}{12} + \frac{\pi g^4}{64} = 2.412132 \times 10^3 \cdot cm^4$$

$J := \min(J2, J3) = 2342.132210 \cdot cm^4$

$$Pkr := \frac{\pi^2 E \cdot J}{Lw^2} = 109.16 \cdot kN$$