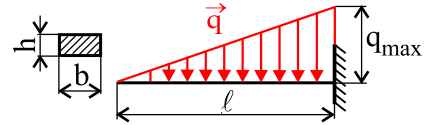

Problem 621

Determine the deflection of the free end of the beam with rectangular cross section according the figure. Gravitational forces can be neglected.

Input values:

$$\begin{aligned} l &= 1,75 \text{ m}, & q_{\max} &= 200 \text{ Nm}^{-1}, & E &= 2 \cdot 10^5 \text{ MPa}, \\ b &= 0,03 \text{ m}, & h &= 0,02 \text{ m}, & \sigma_K &= 200 \text{ MPa} \end{aligned}$$



flexion

Castigliano's theorem

supported beam