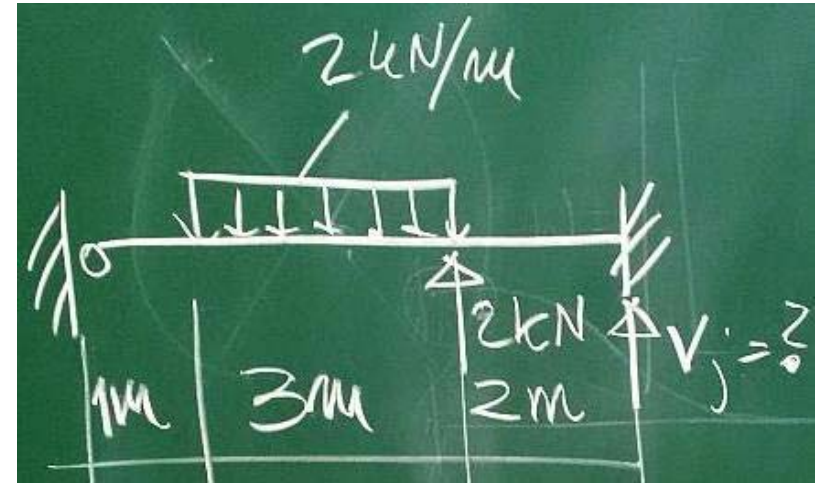
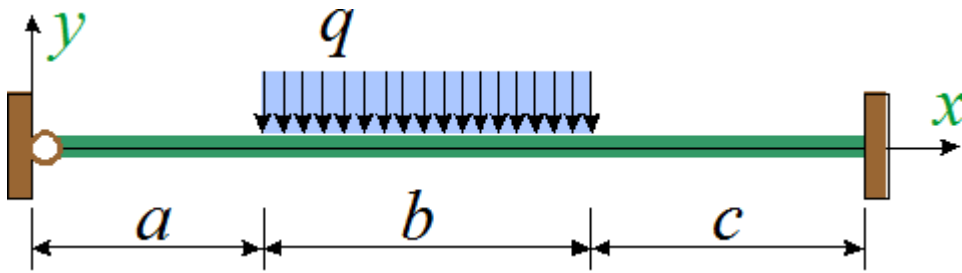


Grupa 2

$$q := 2 \cdot \frac{\text{kN}}{\text{m}} \quad P := 2 \text{ kN} \quad a := 1 \cdot \text{m} \quad b := 3 \cdot \text{m} \quad c := 2 \cdot \text{m} \quad L := a + b + c$$

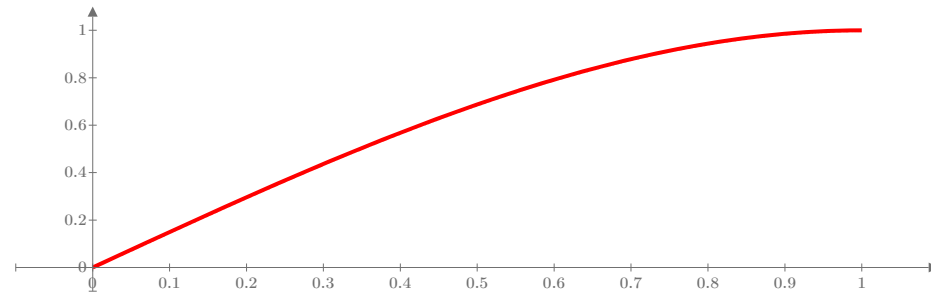
$$\xi_1 := \frac{a}{L} = 0.166667 \quad \xi_2 := \frac{a+b}{L} = 0.666667 \quad \xi_P := \xi_2$$



$$K0010(\xi) := \frac{\xi}{2} \cdot (3 - \xi^2)$$

Równanie pracy wirtualnej

$$V_j \cdot 1 + P \cdot K0010(\xi_P) - q \cdot L \cdot \int_{\xi_1}^{\xi_2} K0010(\xi) d\xi = 0$$



$K0010(\xi)$

ξ

$$V_j := q \cdot L \cdot \int_{\xi_1}^{\xi_2} K0010(\xi) d\xi - P \cdot K0010(\xi_P) = 1.7512 \text{ kN}$$

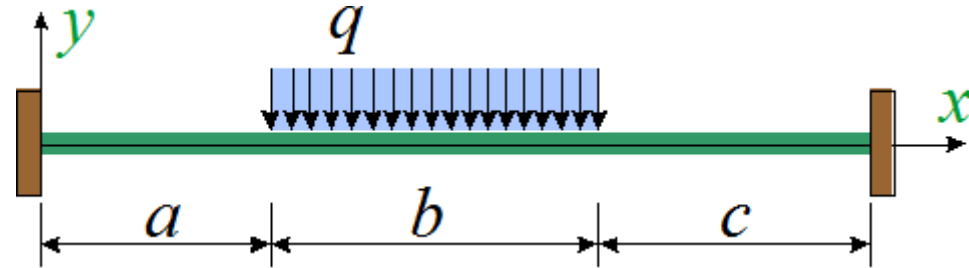
Definicja wielomianów Hermite'a dla belki obustronnie sztywno zamocowanej

$$H1000(\xi) := 1 - 3 \cdot \xi^2 + 2 \cdot \xi^3$$

$$H0100(\xi) := \xi \cdot (1 - 2 \cdot \xi + \xi^2)$$

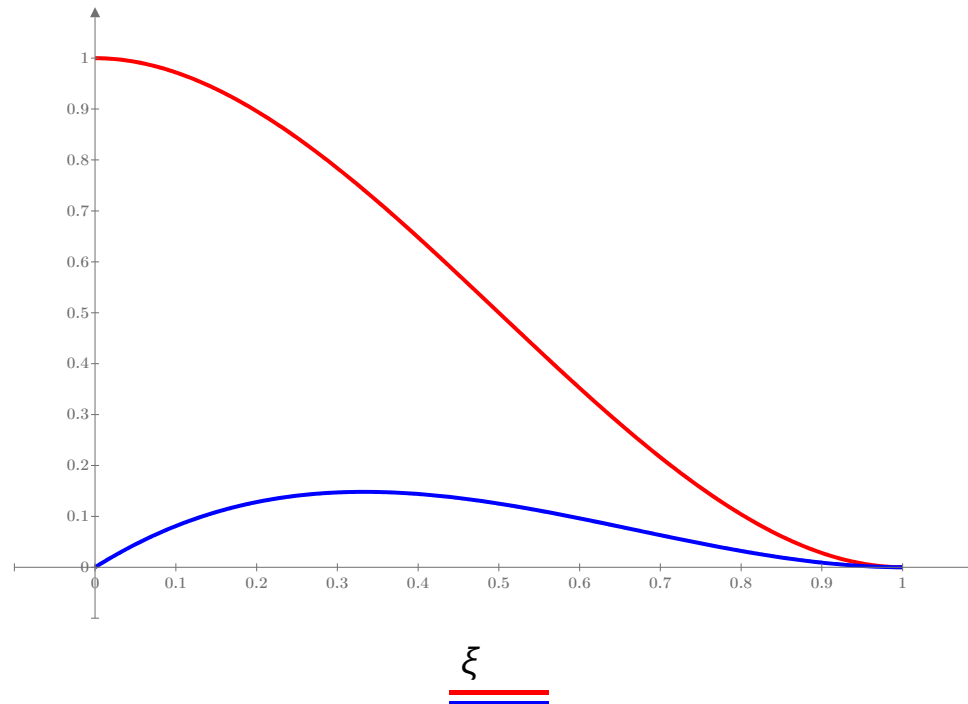
$$H0010(\xi) := \xi^2 \cdot (3 - 2 \cdot \xi)$$

$$H0001(\xi) := -\xi^2 \cdot (1 - \xi)$$



$$\underline{H1000(\xi)}$$

$$\underline{H0100(\xi)}$$

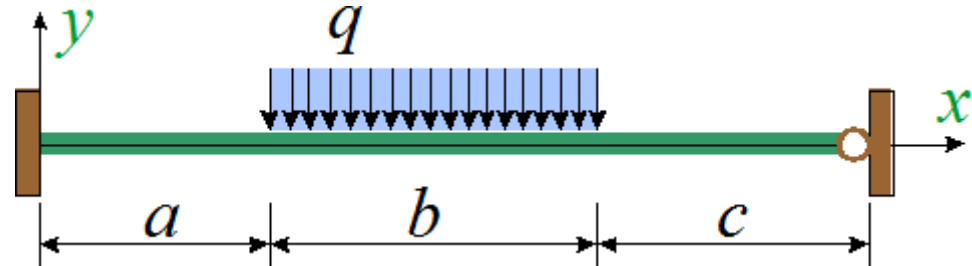


Definicja wielomianów Hermite'a dla belki zamocowanej przegubowo na prawej podporze - $G(\xi)$

$$G1000(\xi) := 1 - \frac{3}{2} \cdot \xi^2 + \frac{1}{2} \cdot \xi^3$$

$$G0100(\xi) := \frac{\xi}{2} \cdot (2 - 3 \cdot \xi + \xi^2)$$

$$G0010(\xi) := \frac{\xi^2}{2} \cdot (3 - \xi)$$



Definicja wielomianów Hermite'a dla belki zamocowanej przegubowo na lewej podporze - $K(\xi)$

$$K1000(\xi) := \frac{1}{2} \cdot \xi^3 - \frac{3}{2} \cdot \xi + 1$$

$$K0010(\xi) := \frac{\xi}{2} \cdot (3 - \xi^2)$$

$$K0001(\xi) := \frac{\xi}{2} \cdot (\xi^2 - 1)$$

