

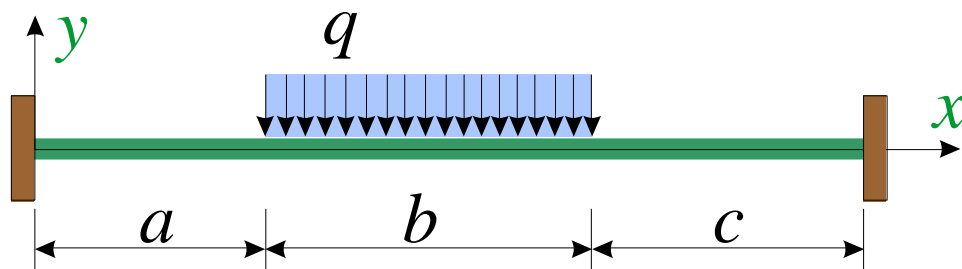
## Grupa A

### Zad. 3

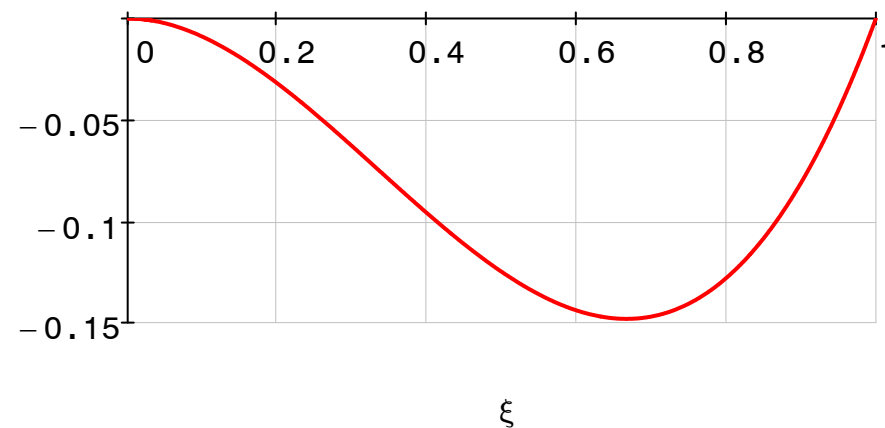
$$q := 5 \frac{\text{kN}}{\text{m}} \quad a := 2\text{m} \quad b := 5\text{m} \quad \underline{c} := 1\text{m} \quad \underline{L} := a + b + c$$

$$\xi_1 := \frac{a}{L} = 0.25$$

$$\xi_2 := \frac{a + b}{L} = 0.875$$



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



### Równanie pracy wirtualnej

$$M_j \cdot 1 - q \cdot L^2 \cdot \int_{\xi_1}^{\xi_2} H0001(\xi) d\xi = 0$$

$$M_j := q \cdot L^2 \cdot \int_{\xi_1}^{\xi_2} H0001(\xi) d\xi = -23.210 \text{ m} \cdot \text{kN}$$

$$M := -M_j = 23.210 \cdot \text{kN} \cdot \text{m}$$