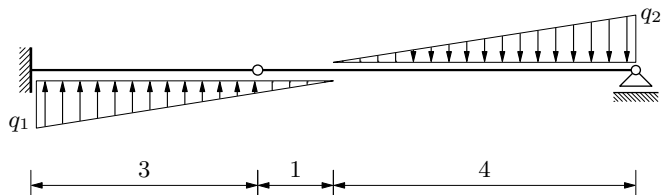


GS 2. — kolokvij (2023./2024.)

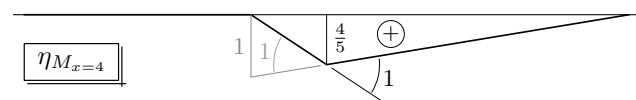
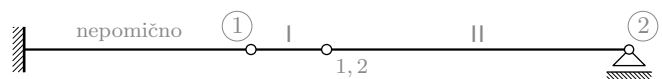
Zadatak B2.

Pomoću utjecajnih linija izračunajte vrijednosti momenta savijanja i poprečne sile u presjeku $x = 4$! (Ishodište je u lijevom ležaju).

$$q_1 = q_2 = 75 \text{ kN/m'}$$



moment savijanja:

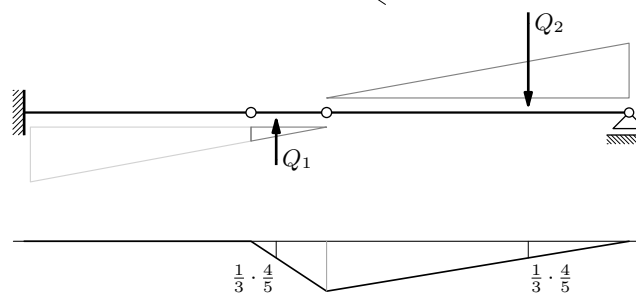


$$Q_1 = \frac{1}{2} \cdot \frac{75}{4} \cdot 1$$

$$= 9,375 \text{ kN}$$

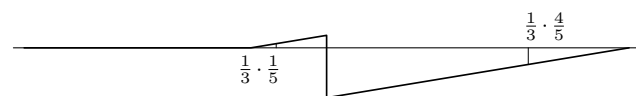
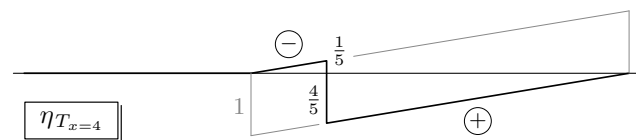
$$Q_2 = \frac{1}{2} \cdot 75 \cdot 4$$

$$= 150 \text{ kN}$$



$$M_{x=4} = -9,375 \cdot \left(\frac{1}{3} \cdot \frac{4}{5}\right) + 150 \cdot \left(\frac{1}{3} \cdot \frac{4}{5}\right) = 37,5 \text{ kNm}$$

poprečna sila:



$$T_{x=4} = -9,375 \cdot \left(-\frac{1}{3} \cdot \frac{1}{5}\right) + 150 \cdot \left(\frac{1}{3} \cdot \frac{4}{5}\right) = 40,625 \text{ kN}$$