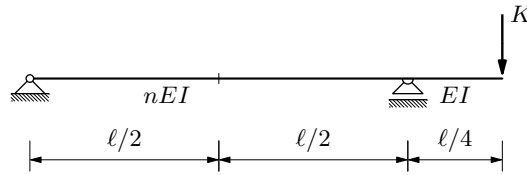


GS 1. — 3. kolokvij (A) (2003./2004.)

1. (15) Izračunati vertikalni pomak
točke $x = \ell/2$.

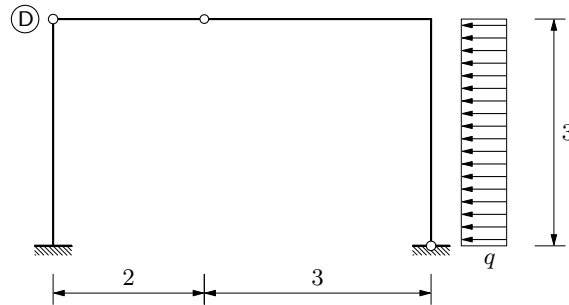


2. (20) Izračunati horizontalni pomak
točke D.

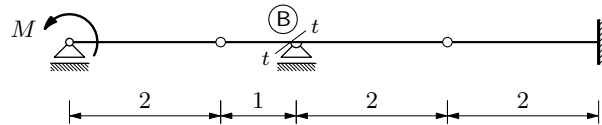
$$q = 25 \text{ kN/m'}$$

$$E = 3 \cdot 10^7 \text{ kN/m}^2$$

$$b/h = 30/60 \text{ [cm]}$$



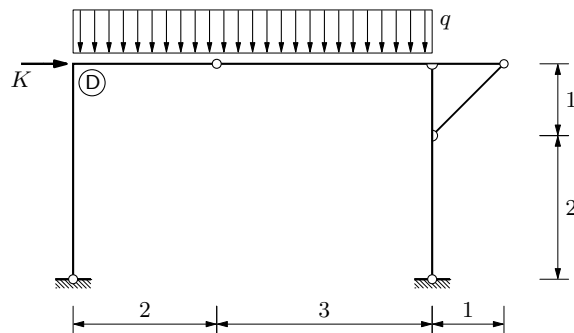
3. (10) Pomoću utjecajnih linija izračunati reakciju u ležaju B i poprečnu silu u presjeku $t - t$.
 $M = 50 \text{ kNm}$



4. (15) Pomoću utjecajne linije izračunati moment u točki D.

$$K = 75 \text{ kN}$$

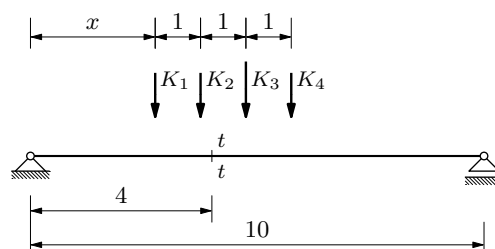
$$q = 25 \text{ kN/m'}$$



5. (20) Odrediti položaj u kojem zadano opterećenje daje najveći moment u presjeku $t - t$.

$$K_1 = K_2 = K_4 = 50 \text{ kN}$$

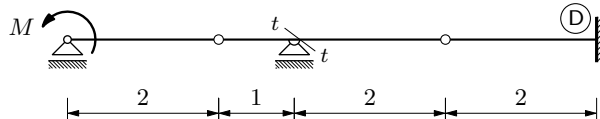
$$K_3 = 75 \text{ kN}$$



GS 1. — 3. kolokvij (B) (2003./2004.)

1. (10) Pomoću utjecajnih linija izračunati vertikalnu reakciju u ležaju D i poprečnu silu u presjeku $t - t$.

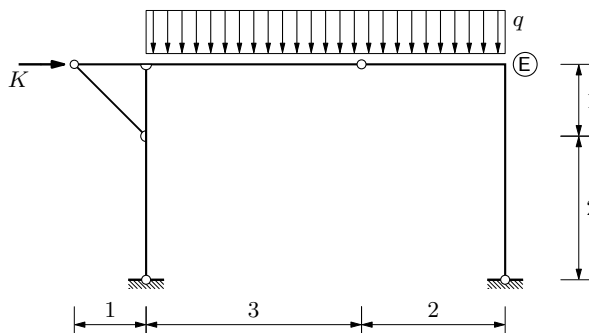
$$M = 50 \text{ kNm}$$



2. (15) Pomoću utjecajne linije izračunati moment u točki E.

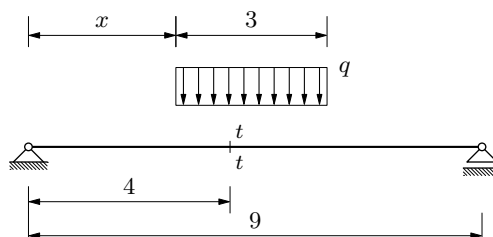
$$K = 75 \text{ kN}$$

$$q = 25 \text{ kN/m'}$$

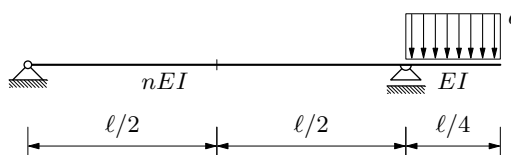


3. (20) Odrediti položaj u kojem zadano opterećenje daje najveći moment u presjeku $t - t$.

$$q = 25 \text{ kN}$$



4. (15) Izračunati vertikalni pomak točke $x = \ell/2$.

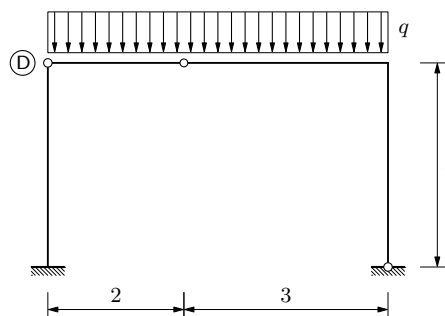


5. (20) Izračunati horizontalni pomak točke D.

$$q = 25 \text{ kN/m'}$$

$$E = 3 \cdot 10^7 \text{ kN/m}^2$$

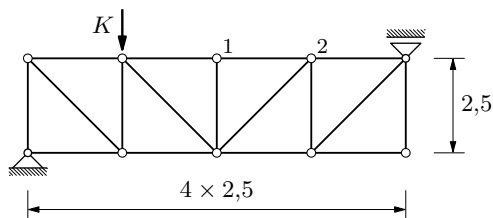
$$b/h = 30/60 \text{ [cm]}$$



GS 1. — 3. kolokvij (C) (2003./2004.)

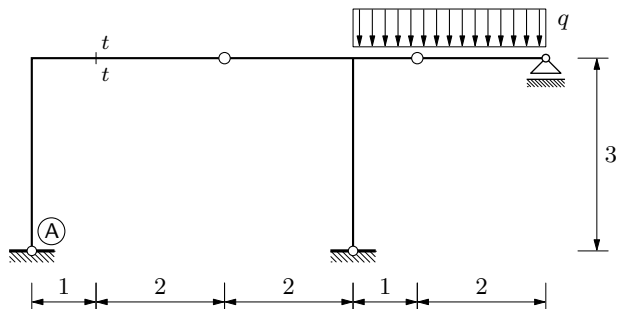
1. (10) Pomoću utjecajne linije izračunati silu u štapu 1-2.

$$K = 75 \text{ kN}$$

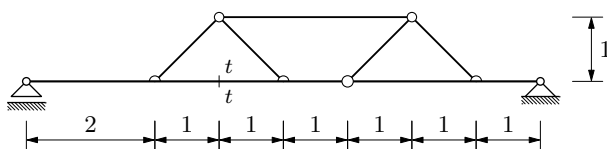


2. (20) Pomoću utjecajnih linija izračunati horizontalnu reakciju u ležaju A i moment u presjeku $t-t$.

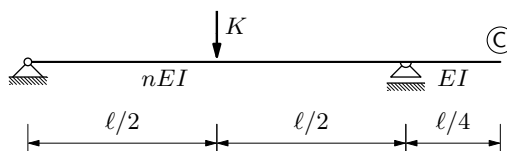
$$q = 50 \text{ kN/m'}$$



3. (15) Nacrtati utjecajnu liniju za poprečnu silu u presjeku $t-t$.



4. (15) Izračunati vertikalni pomak točke C.



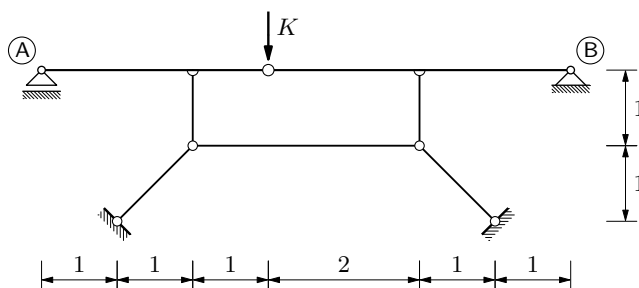
5. (20) Izračunati relativni zaokret osi između točaka A i B: $\Delta\varphi_{A,B}$.

$$K = 100 \text{ kN}$$

$$E = 3 \cdot 10^7 \text{ kN/m}^2$$

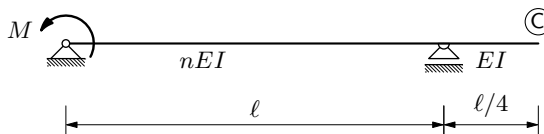
$$\text{greda: } b/h = 40/60 \text{ [cm]}$$

$$\text{štapovi: } b/h = 30/30 \text{ [cm]}$$



GS 1. — 3. kolokvij (D) (2003./2004.)

1. (15) Izračunati vertikalni pomak točke C.



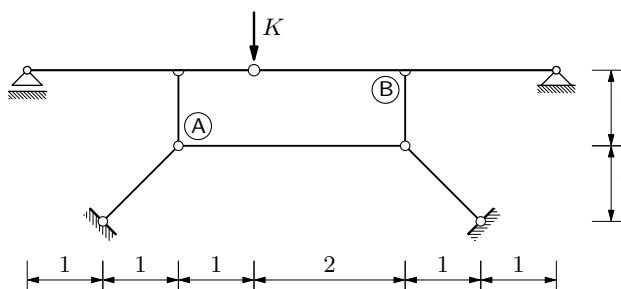
2. (20) Izračunati promjenu udaljenosti točaka A i B: $\Delta d_{A,B}$.

$$K = 100 \text{ kN}$$

$$E = 3 \cdot 10^7 \text{ kN/m}^2$$

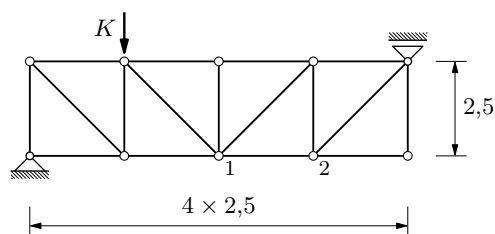
$$\text{greda: } b/h = 40/60 \text{ [cm]}$$

$$\text{štapovi: } b/h = 30/30 \text{ [cm]}$$



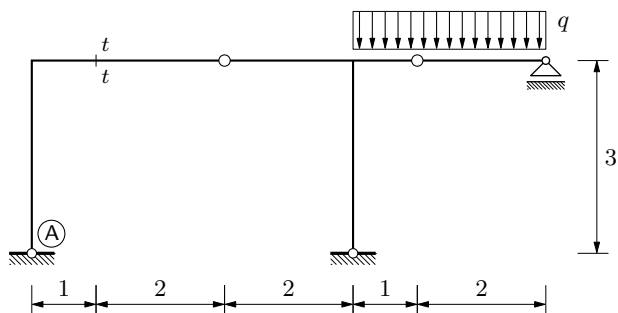
3. (10) Pomoću utjecajne linije izračunati silu u štapu 1-2.

$$K = 75 \text{ kN}$$



4. (20) Pomoću utjecajnih linija izračunati vertikalnu reakciju u ležaju A i poprečnu silu u presjeku $t-t$.

$$q = 50 \text{ kN/m'}$$



5. (15) Nacrtati utjecajnu liniju za moment u presjeku $t-t$.

