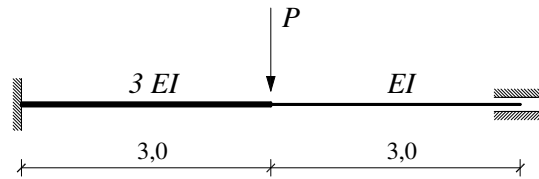


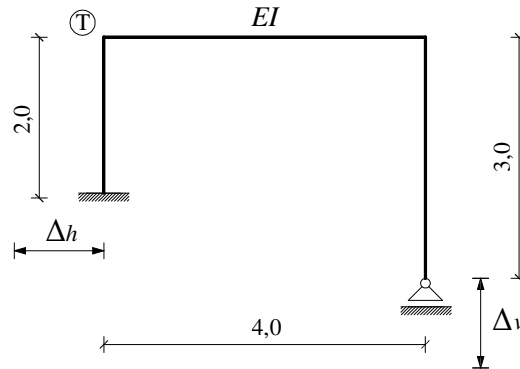
GS 1. – 2. kolokvij (A) (2006./2007.)

1. (25) Nacrtajte M dijagram.



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

2. (30) Izračunajte horizontalni pomak točke T.



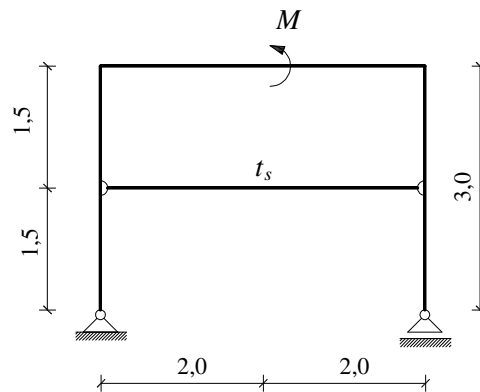
$$\Delta h = 4,0 \text{ cm}$$

$$\Delta v = 3,0 \text{ cm}$$

$$EI = 20\,000 \text{ kNm}^2$$

3. (30) Nacrtajte M dijagram.

okvir:
 $E = 3 \cdot 10^7 \text{ kN/m}^2$
 $b/h = 30/60 \text{ cm}$
 zatega:
 $E = 2 \cdot 10^8 \text{ kN/m}^2$
 $b/h = 10/10 \text{ cm}$

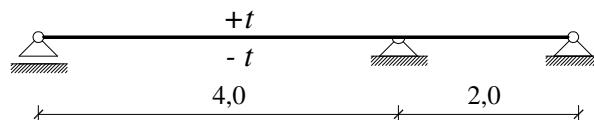


$$M = 150 \text{ kNm}$$

$$t_s = 10 \text{ }^\circ\text{C}$$

4. (15) Nacrtajte M i T dijagrame.

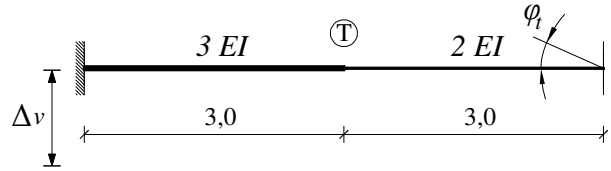
$E = 3 \cdot 10^7 \text{ kN/m}^2$
 $b/h = 40/60 \text{ cm}$



$$t = 10 \text{ }^\circ\text{C}$$

GS 1. – 2. kolokvij (B) (2006./2007.)

1. (30) Izračunajte vertikalni pomak točke T.

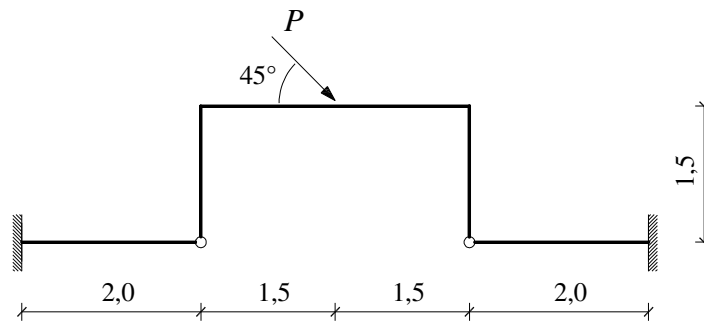


$$\Delta v = 2,5 \text{ cm}$$

$$\varphi_t = 0,006$$

$$EI = 20\,000 \text{ kNm}^2$$

2. (25) Nacrtajte M dijagram.

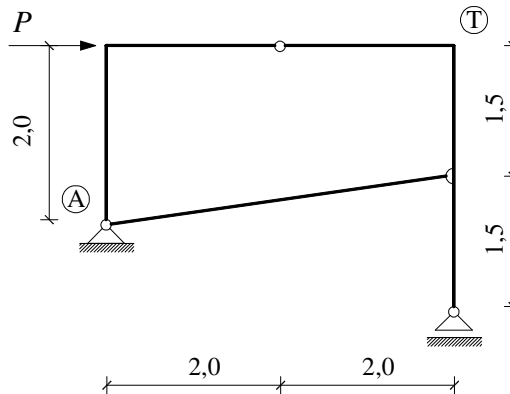


$$P = 100\sqrt{2} \text{ kN}$$

$$EI = \text{const.}$$

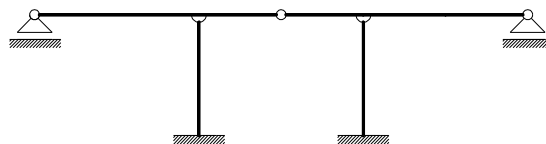
3. (30) Izračunajte promjenu udaljenosti između točaka A i T.

okvir:
 $E = 3 \cdot 10^7 \text{ kN/m}^2$
 $b/h = 30/45 \text{ cm}$
 zatega:
 $E = 2 \cdot 10^8 \text{ kN/m}^2$
 $b/h = 8/8 \text{ cm}$



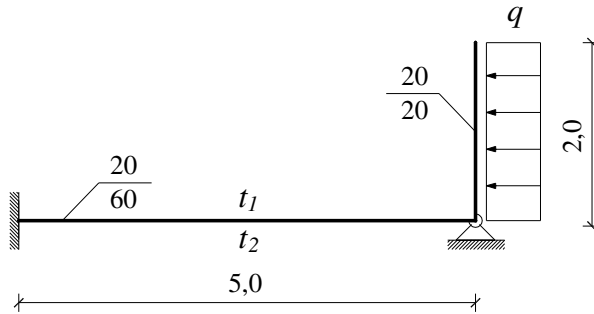
$$P = 100 \text{ kN}$$

4. (15) Odredite stupanj statičke neodređenosti, nacrtajte dva osnovna sistema te označite sile X_i .



GS 1. – 2. kolokvij (C) (2006./2007.)

1. (30) Nacrtajte M i N dijagrame.



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

$$t_1 = 50 \text{ }^\circ\text{C}$$

$$t_2 = 0 \text{ }^\circ\text{C}$$

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

2. (40) Nacrtajte M dijagram.

greda:

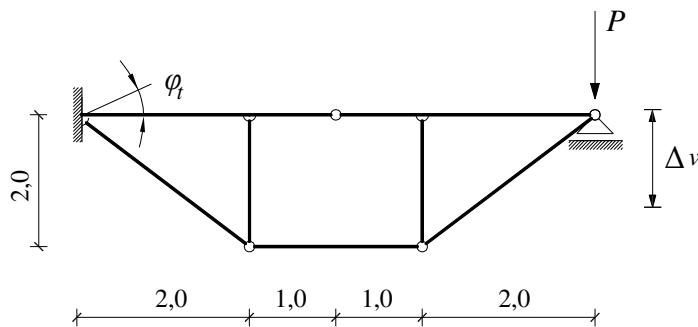
$$E = 3 \cdot 10^7 \text{ kN/m}^2$$

$$b/h = 36/60 \text{ cm}$$

štapovi:

$$E = 2 \cdot 10^8 \text{ kN/m}^2$$

$$b/h = 10/10 \text{ cm}$$

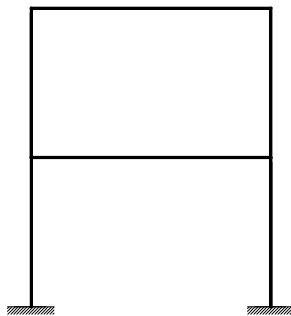


$$P = 100 \text{ kN}$$

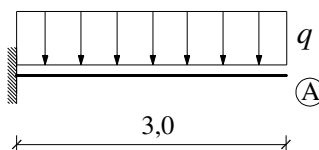
$$\Delta v = 3,0 \text{ cm}$$

$$\varphi_t = 0,006$$

3. (10) Odredite stupanj statičke neodređenosti, nacrtajte jedan osnovni sistem te označite sile X_i .



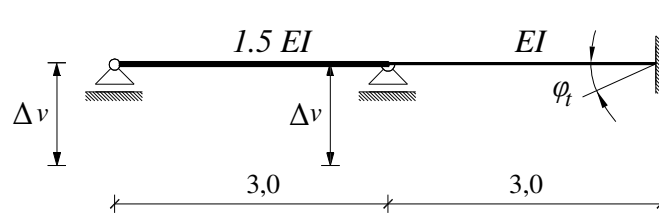
4. (20) Odredite vrijednost kontinuiranog opterećenja q zbog kojeg je vertikalni pomak točke A $v_A = 1,0 \text{ cm}$.



$$EI = 20\,000 \text{ kNm}^2$$

GS 1. – 2. kolokvij (D) (2006./2007.)

1. (30) Nacrtajte M dijagram.

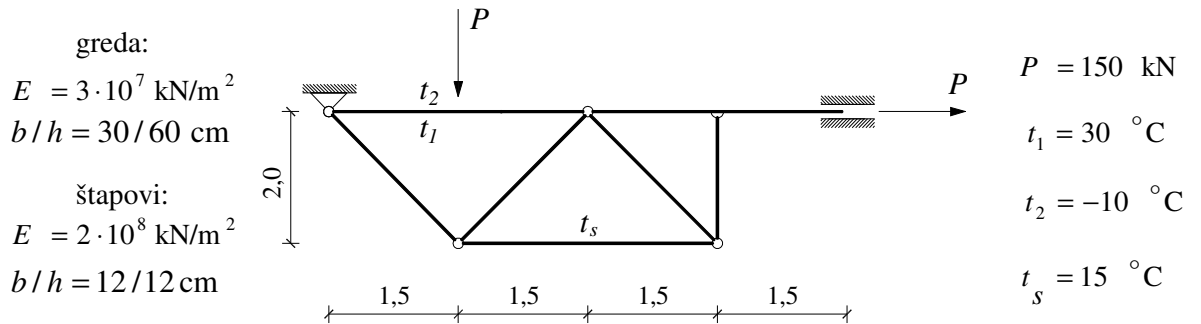


$$\varphi_t = 0,001$$

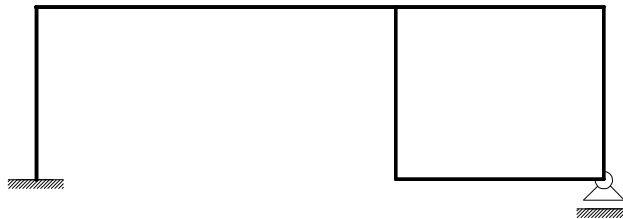
$$\Delta v = 3,0 \text{ cm}$$

$$EI = 20\,000 \text{ kNm}^2$$

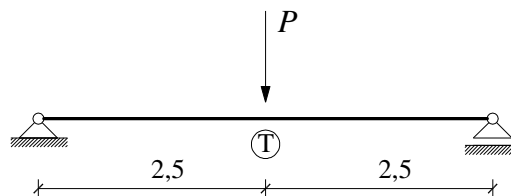
2. (40) Nacrtajte M i N dijagrame.



3. (10) Odredite stupanj statičke neodređenosti, nacrtajte jedan osnovni sistem te označite sile X_i .



4. (20) Odredite vrijednost sile P zbog koje je vertikalni pomak točke \mathbf{T} $v_T = 1,0 \text{ cm}$.



$$EI = 40\,000 \text{ kNm}^2$$