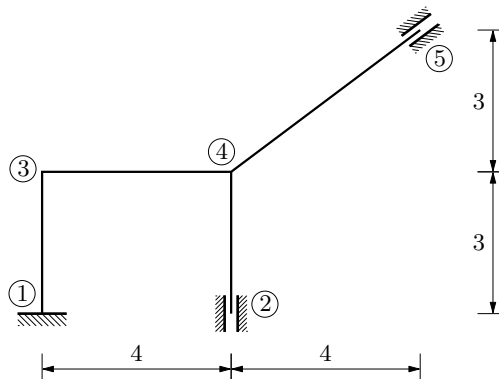


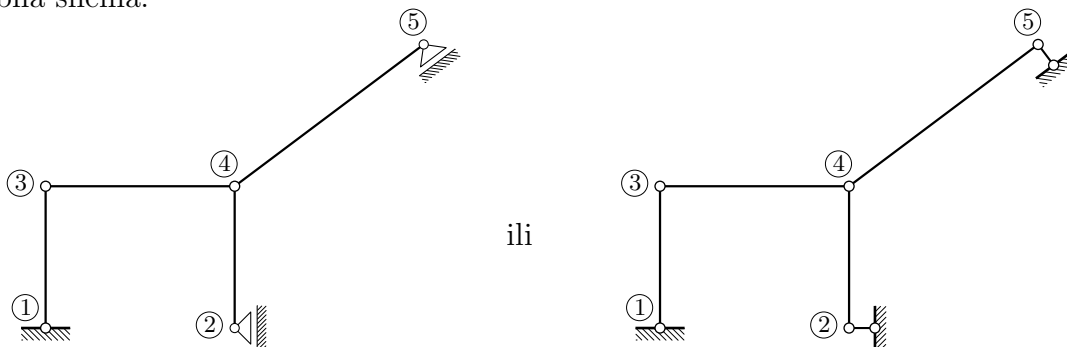
GS 2. — kolokvij (2023./2024.)

Zadatak A1.

Nabrojite nepoznanice za proračun prikazanoga sistema inženjerskom metodom pomakā! Za neovisne translacijske pomake skicirajte plan(ove) pomakā ili dijagram(e) projekcija pomakā!



zglobna shema:

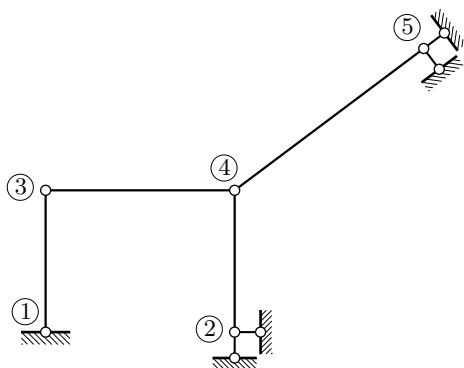


slobodni čvorovi: 2, 3, 4, 5

$$s_{\min} = 4 \cdot 2 - 6 = 2$$

dodavanje spojeva čvorova s podlogom (kinematička analiza zglobne sheme):

1.



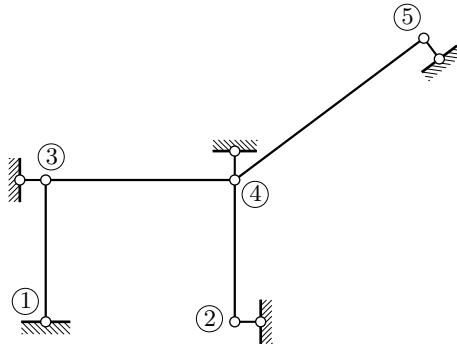
[čvor 1 – ležajni (nepomičan)]

čvorovi 2 i 5 nepomični

→ čvor 4 nepomičan

→ čvor 3 nepomičan

ili: 2.



[čvor 1 – ležajni]

čvor 3 nepomičan

→ čvor 4 nepomičan

→ čvorovi 2 i 5 nepomični

1. (ili 2.) $\Rightarrow s = s_{\min} = 2$

nepoznanice:

- $\varphi_3, \varphi_4, w_2$ i δ_5 (po kosom pravcu) ili u_5 (horizontalna komponenta)
ili w_5 (vertikalna komponenta)

(2 i 5 su „vodeći” čvorovi neovisnih pomaka; pomiču se, naravno, i drugi čvorovi)

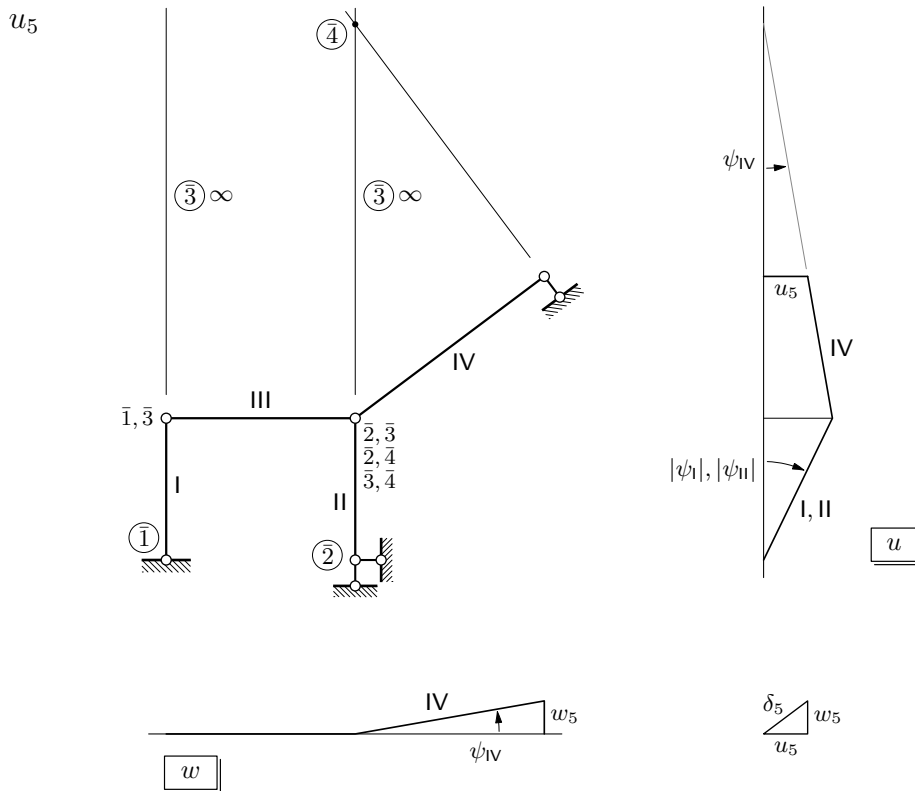
ili:

- $\varphi_3, \varphi_4, u_3$ i w_4

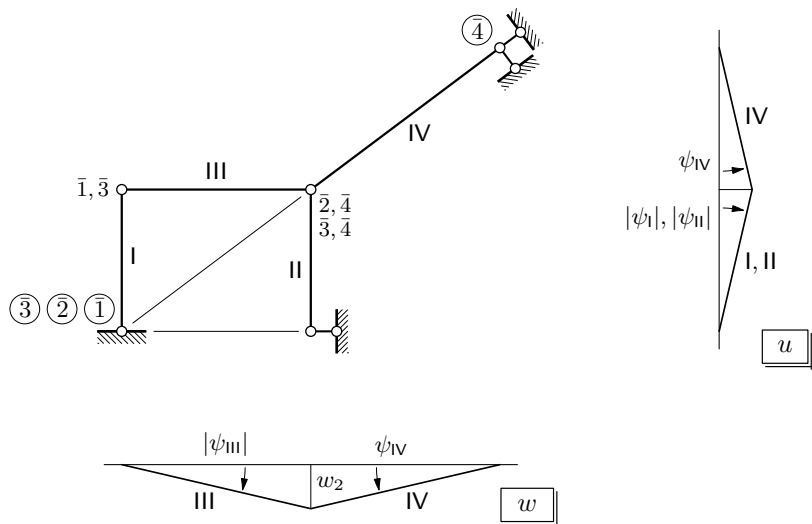
(3 i 4 su „vodeći” čvorovi neovisnih pomaka)

dijagrami projekcija pomakā:

1.



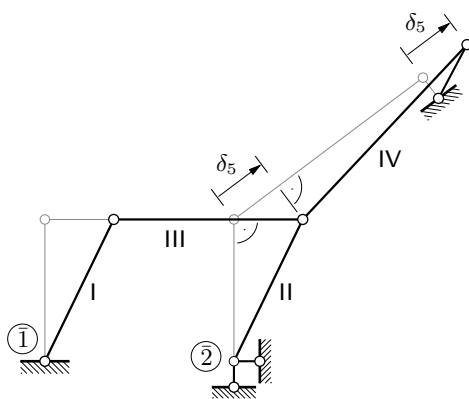
w_2



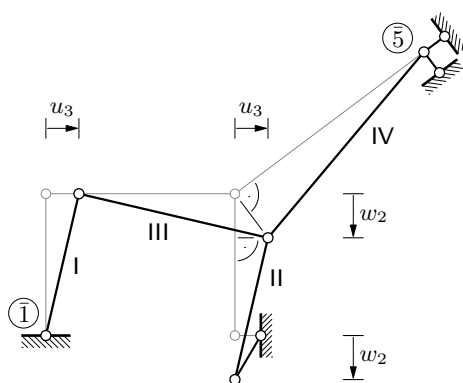
planovi pomakā:

1.

$\delta_5 (u_5)$

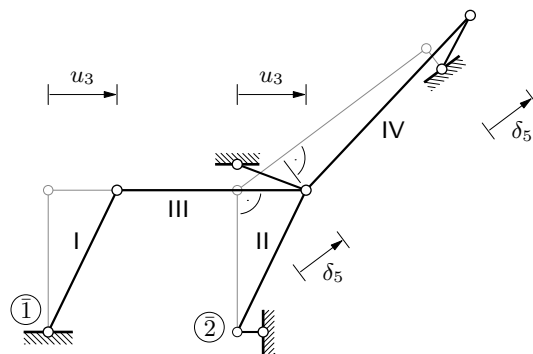


w_2

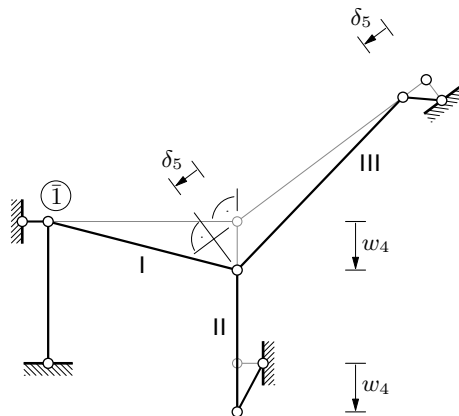


ili: 2.

u_3



w_4



[Crtanje dijagrama projekcija pomakā za mehanizme iz kinematičke analize 2. ostavljam vam za domaću zabavu.]