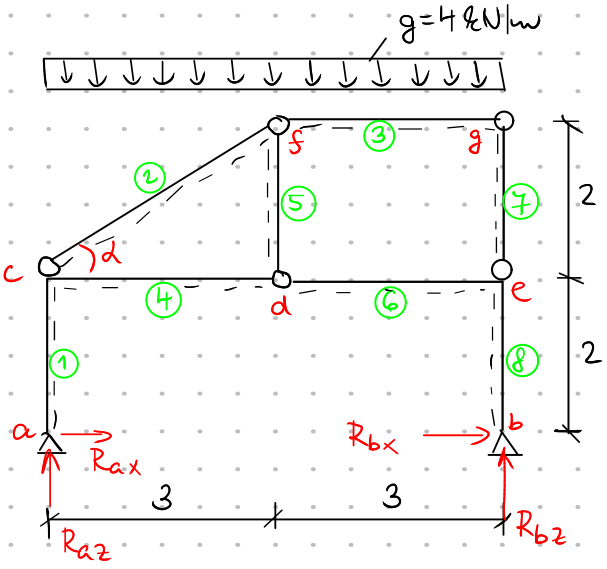
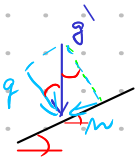


$$l_2 = \sqrt{3^2+2^2} = \sqrt{13}$$

$$\sin\alpha = \frac{2}{\sqrt{13}} \qquad \cos\alpha = \frac{3}{\sqrt{13}}$$



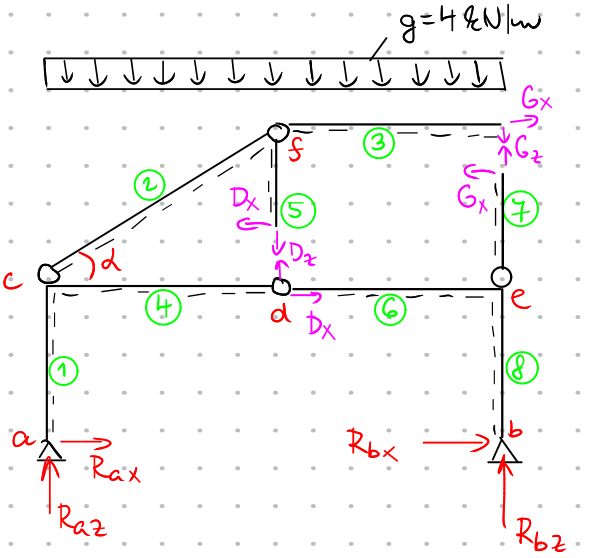
$$g' = \frac{g\cdot 3}{l_2} = \frac{4\cdot 3}{\sqrt{13}} = \frac{12}{\sqrt{13}}$$

$$q = g'\cos\alpha = \frac{12}{\sqrt{13}}\cdot\frac{3}{\sqrt{13}} = \frac{36}{13} = 2{,}76923\ \text{kN/m}$$

$$n = g'\sin\alpha = \frac{12}{\sqrt{13}}\cdot\frac{2}{\sqrt{13}} = \frac{24}{13} = 1{,}84615\ \text{kN/m}$$

$$Q = q\cdot l_2 = \frac{36}{13}\sqrt{13} = 9{,}9846\ \text{kN}$$

$$N = n\cdot l_2 = \frac{24}{13}\sqrt{13} = 6{,}6564\ \text{kN}$$



REAKCE:

$\Sigma M_{ai} = 0 \oplus \circlearrowleft$

$R_{bz}\cdot 6 - g\cdot 6\cdot 3 = 0 \Rightarrow R_{bz} = 12\ \text{kN}$

$\Sigma M_{bi} = 0 \oplus \circlearrowright$

$R_{az}\cdot 6 - g\cdot 6\cdot 3 = 0 \Rightarrow R_{az} = 12\ \text{kN}$

kontrola $\Sigma F_{zi} = 0 \oplus \uparrow$

$R_{az} + R_{bz} - g\cdot 6 = 0$ ✓

$\Sigma M^{③}_{fi} = 0 \oplus \circlearrowright$

$g\cdot 3\cdot 1{,}5 + G_z\cdot 3 = 0 \Rightarrow G_z = -6\ \text{kN}$

$\Sigma M^{P}_{ei} = 0 \oplus \circlearrowleft \quad G_x\cdot 2 = 0 \Rightarrow G_x = 0\ \text{kN}$

$\Sigma M^{P}_{ci} = 0 \oplus \circlearrowright$

$D_z\cdot 3 + G_z\cdot 6 + g\cdot 6\cdot 3 = 0 \Rightarrow D_z = -12\ \text{kN}$

$\Sigma M^{⑤}_{fi} = 0 \oplus \circlearrowright \quad D_x\cdot 2 = 0 \Rightarrow D_x = 0\ \text{kN}$

$\Sigma M^{P}_{di} = 0 \oplus \circlearrowleft$

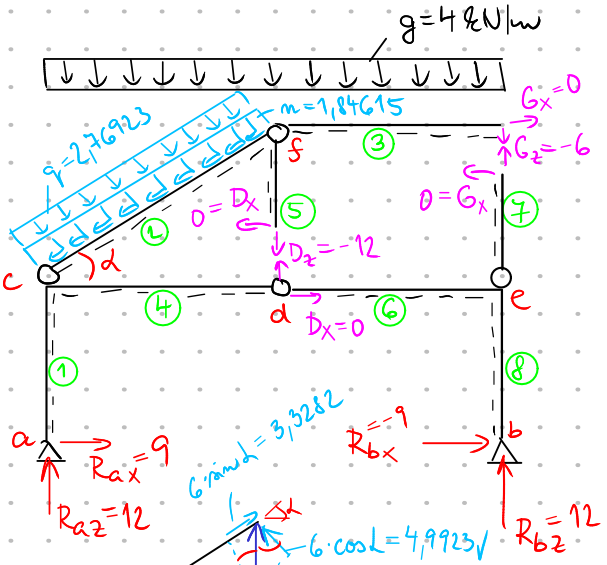
$G_z\cdot 3 + G_x\cdot 2 + R_{bx}\cdot 2 + R_{bz}\cdot 3 = 0 \Rightarrow R_{bx} = -9\ \text{kN}$

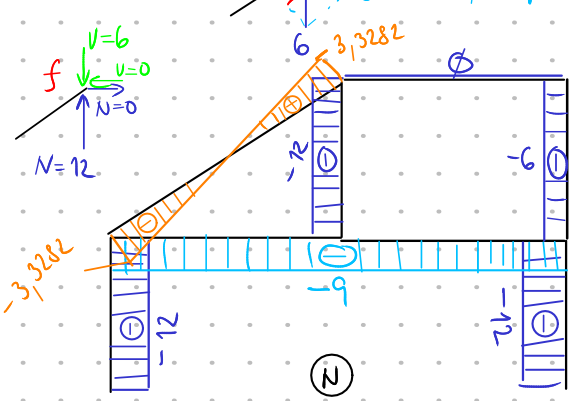
$\Sigma M^{L}_{di} = 0 \oplus \circlearrowleft$

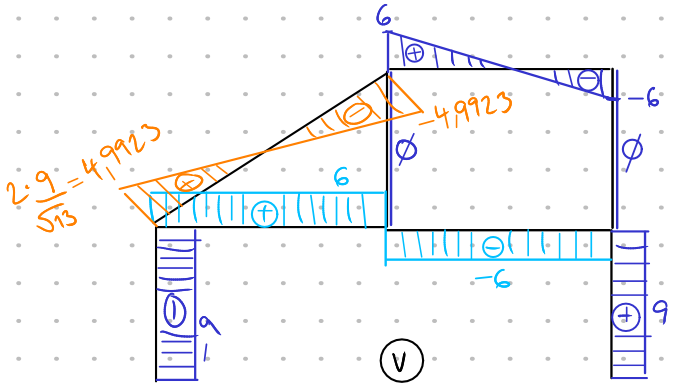
$R_{ax}\cdot 2 - R_{az}\cdot 3 + g\cdot 6\cdot 0 - G_x\cdot 2 - G_z\cdot 3 = 0 \Rightarrow R_{ax} = 9\ \text{kN}$

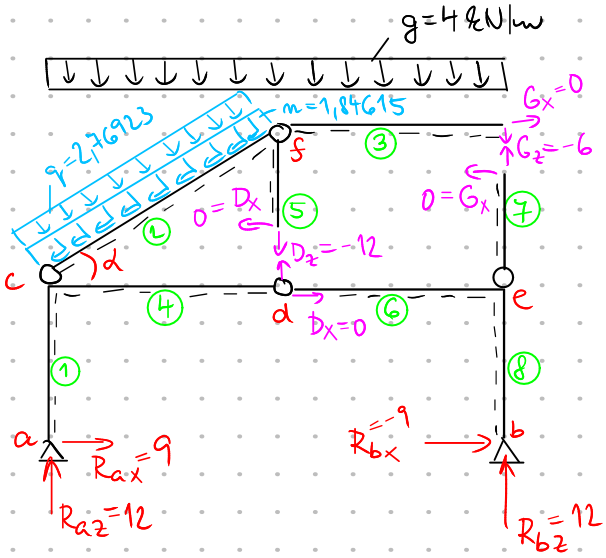
kontrola: $\Sigma F_{xi} = 0 \oplus \rightarrow$

$R_{ax} + R_{bx} = 0$ ✓









$\frac{1}{8}ql^2=\frac{1}{8}4\cdot3^2=4{,}5$ ✓

$\frac{1}{8}ql^2=\frac{1}{8}2{,}76923\cdot\sqrt{13}^2=4{,}5$ ✓