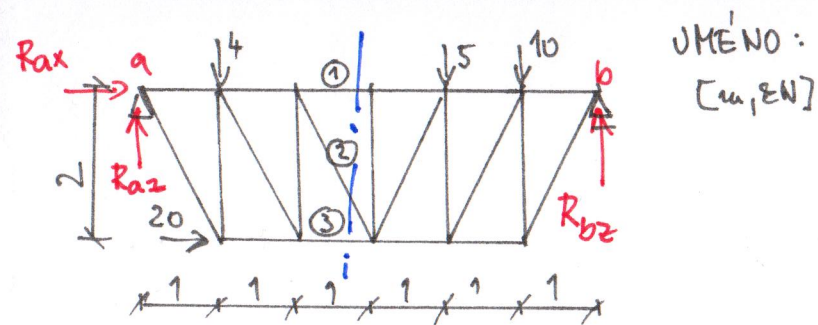




UMENO:
[m, kN]

$$\rightarrow \sum F_{xi} = 0 \Rightarrow R_{ax} + 20 = 0 \Rightarrow \underline{R_{ax} = -20 \text{ kN}}$$

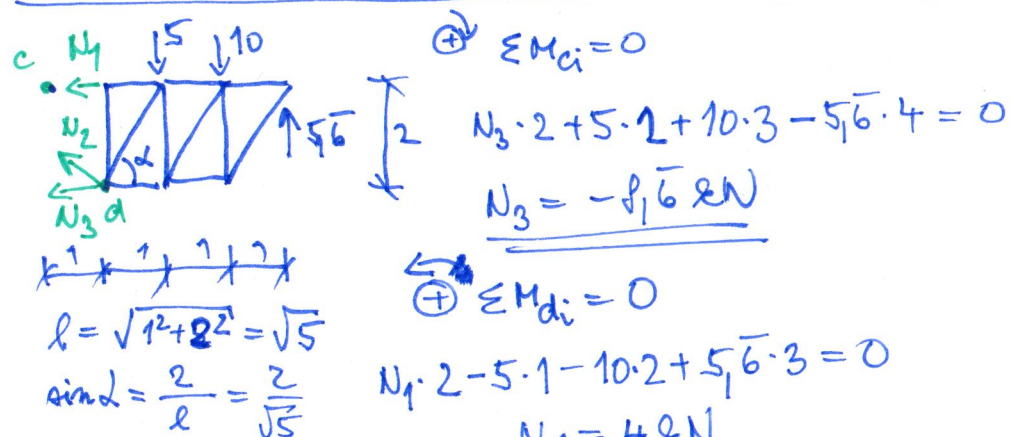
$$\rightarrow \sum M_{ai} = 0 \Rightarrow 4 \cdot 1 - 20 \cdot 2 + 5 \cdot 4 + 10 \cdot 5 - R_{bz} \cdot 6 = 0$$

$$R_{bz} = \frac{34}{6} = \underline{5,6 \text{ kN}}$$

$$\rightarrow \sum M_{bi} = 0 \Rightarrow -R_{az} \cdot 6 + 4 \cdot 5 + 20 \cdot 2 + 5 \cdot 2 + 10 \cdot 1 = 0$$

$$R_{az} = \underline{13,3 \text{ kN}}$$

$$\sum F_{zi} = 0 \Rightarrow 13,3 + 5,6 - 4 - 5 - 10 = 0 \quad \underline{0=0 \checkmark}$$



$$\rightarrow \sum M_{ci} = 0$$

$$N_3 \cdot 2 + 5 \cdot 2 + 10 \cdot 3 - 5,6 \cdot 4 = 0$$

$$\underline{N_3 = -8,6 \text{ kN}}$$

$$\rightarrow \sum M_{di} = 0$$

$$N_1 \cdot 2 - 5 \cdot 1 - 10 \cdot 2 + 5,6 \cdot 3 = 0$$

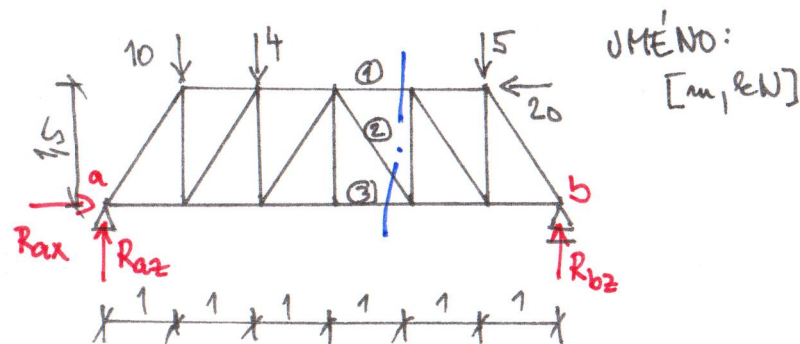
$$\underline{N_1 = 4 \text{ kN}}$$

$$\rightarrow \sum F_{zi} = 0$$

$$N_{2z} - 5 - 10 + 5,6 = 0$$

$$N_2 = \frac{10 + 5 - 5,6}{\sin d} = \underline{10,435 \text{ kN}}$$

[7 min]



UMENO:
[m, kN]

$$\rightarrow \sum F_{xi} = 0 \Rightarrow R_{ax} - 20 = 0 \Rightarrow \underline{R_{ax} = 20 \text{ kN}}$$

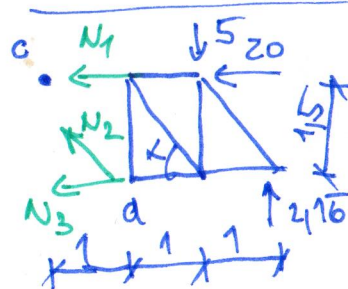
$$\rightarrow \sum M_{ai} = 0 \Rightarrow 10 \cdot 1 + 4 \cdot 2 + 5 \cdot 5 - 20 \cdot 1,5 - R_{bz} \cdot 6 = 0$$

$$\underline{R_{bz} = +2,16 \text{ kN}}$$

$$\rightarrow \sum M_{bi} = 0 \Rightarrow -R_{az} \cdot 6 + 10 \cdot 5 + 4 \cdot 4 + 5 \cdot 1 + 20 \cdot 1,5 = 0$$

$$R_{az} = \underline{16,83 \text{ kN}}$$

$$\rightarrow \sum F_{zi} = 0 \Rightarrow 16,83 + 2,16 - 10 - 4 - 5 = 0 \quad \underline{0=0 \checkmark}$$



$$\sum M_{ci} = 0 \quad \oplus 2$$

$$N_3 \cdot 1,5 + 5 \cdot 2 - 2,16 \cdot 3 = 0$$

$$\underline{N_3 = -2,13 \text{ kN}}$$

$$\sum M_{di} = 0 \quad \oplus \uparrow$$

$$N_1 \cdot 1,5 - 5 \cdot 1 + 20 \cdot 1,5 + 2,16 \cdot 2 = 0$$

$$\underline{N_1 = -19,5 \text{ kN}}$$

$$\sin d = \frac{1,5}{\sqrt{3,25}}$$

$$\sum F_{zi} = 0 \quad \oplus \uparrow$$

$$N_{2z} - 5 + 2,16 = 0$$

$$N_2 = \frac{5 - 2,16}{\sin d} = \underline{3,405 \text{ kN}}$$

[7 min]