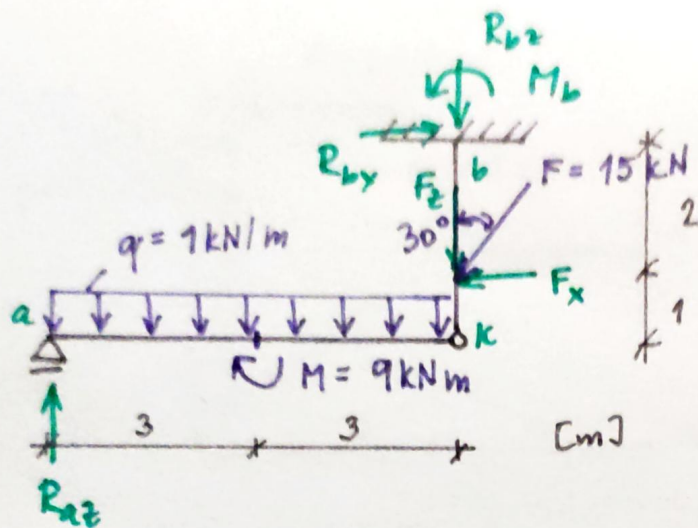




T1-0: REAKCE

Iměno:

Skupina:

$$F_x = F \cdot \sin 30^\circ = 7,5 \text{ kN}$$

$$F_z = F \cdot \cos 30^\circ = 12,99 = \underline{\underline{13 \text{ kN}}}$$

$$\begin{aligned} \textcircled{+} \sum F_{ix} = 0: & \quad R_{bx} - F_x = 0 \\ & \quad \underline{\underline{R_{bx} = F_x = 7,5 \text{ kN}}} \quad (\rightarrow) \end{aligned}$$

$$\begin{aligned} \textcircled{+} \sum M_{ik}^L = 0: & \quad -R_{az} \cdot 6 + q \cdot 6 \cdot 3 - M = 0 \\ & \quad \underline{\underline{R_{az} = \frac{1}{6}(1 \cdot 6 \cdot 3 - 9) = 1,5 \text{ kN}}} \quad (\uparrow) \end{aligned}$$

$$\begin{aligned} \textcircled{+} \sum M_{ib} = 0: & \quad -R_{az} \cdot 6 + q \cdot 6 \cdot 3 - M - F_x \cdot 2 + M_b = 0 \\ & \quad \underline{\underline{M_b = 1,5 \cdot 6 + 1 \cdot 6 \cdot 3 + 9 + 7,5 \cdot 2 = 15 \text{ kNm}}} \quad (\curvearrowright) \end{aligned}$$

$$\begin{aligned} \textcircled{+} \sum F_{iz} = 0: & \quad -R_{az} + q \cdot 6 + F_z + R_{bz} = 0 \\ & \quad \underline{\underline{R_{bz} = 1,5 - 1 \cdot 6 - 13 = -17,5 \text{ kN}}} \quad (\uparrow) \end{aligned}$$

$$\begin{aligned} K: \textcircled{+} \sum M_{ik}^P = 0: & \quad M_b - R_{bx} \cdot 3 + F_x \cdot 1 = 0 \\ & \quad 15 - 7,5 \cdot 3 + 7,5 \cdot 1 = 0 \quad \checkmark \end{aligned}$$