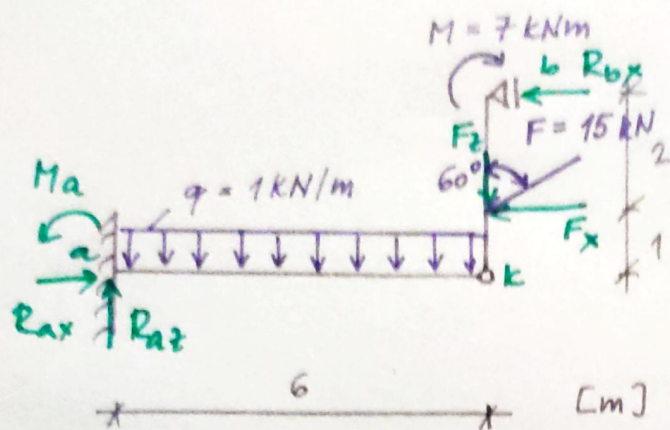




T1-0 REAKCE

Jméno:

Skupina:

$$F_x = F \cdot \sin 60^\circ = 12,99 = 13 \text{ kN}$$

$$F_2 = F \cdot \cos 60^\circ = 7,5 \text{ kN}$$

$$\begin{aligned} \textcircled{+} \downarrow \sum F_{iz} = 0: & -R_{az} + q \cdot 6 + F_2 = 0 \\ & \underline{R_{az}} = 1 \cdot 6 + 7,5 = \underline{13,5 \text{ kN}} \quad (\uparrow) \end{aligned}$$

$$\begin{aligned} \textcircled{+} \curvearrowright \sum M_{ik}^P = 0: & -M + R_{bx} \cdot 3 + F_x \cdot 1 = 0 \\ & \underline{R_{bx}} = \frac{1}{3}(7 - 13 \cdot 1) = \underline{-2 \text{ kN}} \quad (\rightarrow) \end{aligned}$$

$$\begin{aligned} \textcircled{+} \rightarrow \sum F_{ix} = 0: & R_{ax} - F_x - R_{bx} = 0 \\ & \underline{R_{ax}} = 13 + (-2) = \underline{11 \text{ kN}} \quad (\rightarrow) \end{aligned}$$

$$\begin{aligned} \textcircled{+} \curvearrowright \sum M_{ia} = 0: & M_a - q \cdot 6 \cdot 3 + F_x \cdot 1 - F_2 \cdot 6 + R_{bx} \cdot 3 - M = 0 \\ & \underline{M_a} = 1 \cdot 6 \cdot 3 - 13 \cdot 1 + 7,5 \cdot 6 - (-2) \cdot 3 + 7 = \\ & \quad = \underline{63 \text{ kNm}} \quad (\curvearrowright) \end{aligned}$$

$$\begin{aligned} \textcircled{+} \curvearrowright \sum M_{ik}^L = 0: & M_a + q \cdot 6 \cdot 3 - R_{az} \cdot 6 = 0 \\ & 63 + 1 \cdot 6 \cdot 3 - 13,5 \cdot 6 = 0 \quad \checkmark \end{aligned}$$