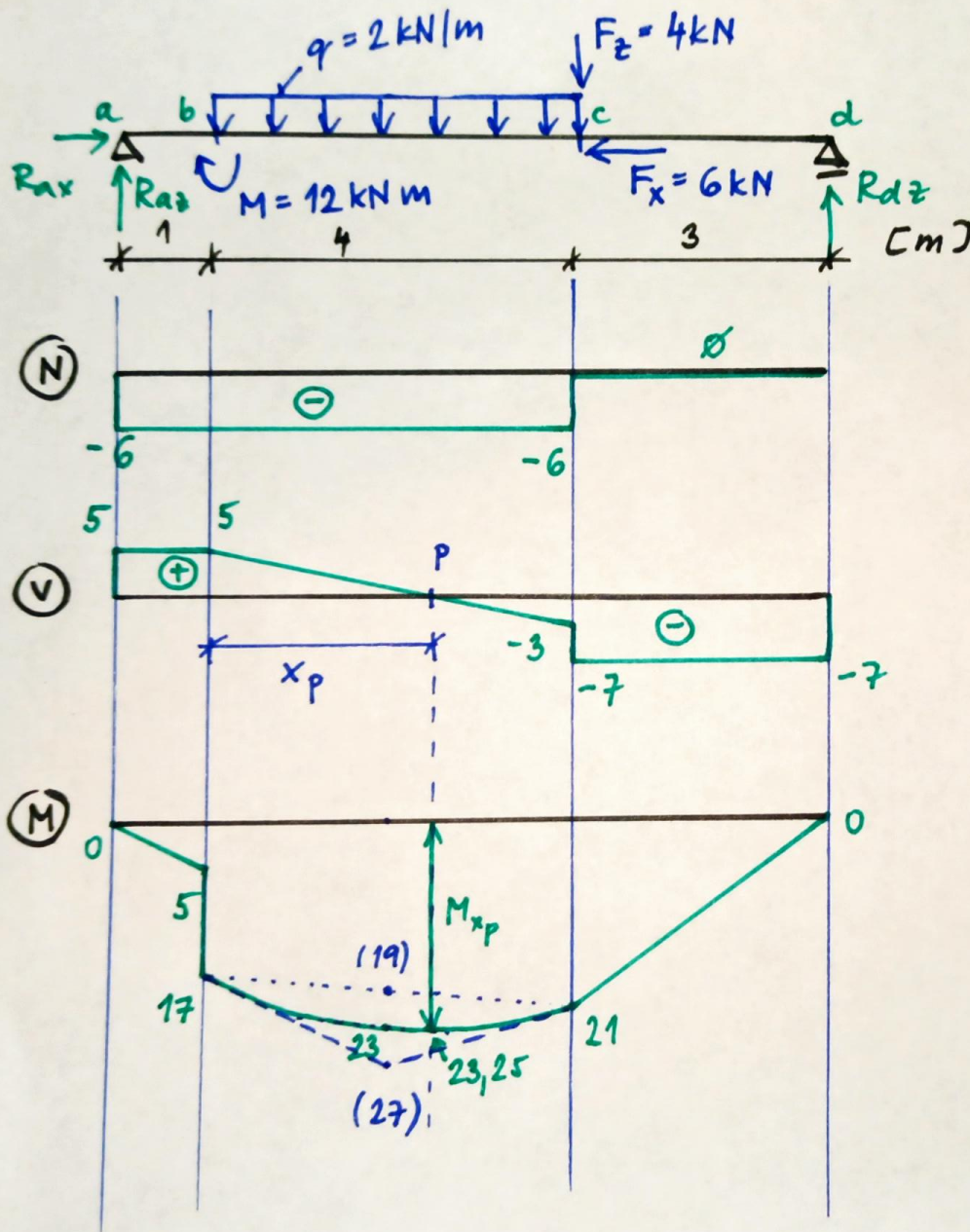




$$\begin{aligned} \rightarrow \sum F_{ix} = 0: R_{ax} - F_x &= 0 \\ R_{ax} &= F_x = \underline{6 \text{ kN}} \end{aligned}$$

$$\begin{aligned} \uparrow \sum M_{ia} = 0: -M - q \cdot 4 \cdot 3 - F_z \cdot 5 + R_{dz} \cdot 8 &= 0 \\ R_{dz} &= \frac{12 + 2 \cdot 4 \cdot 3 + 4 \cdot 5}{8} = \underline{7 \text{ kN}} \end{aligned}$$

$$\begin{aligned} \uparrow \sum M_{ib} = 0: -R_{dz} \cdot 8 - M + q \cdot 4 \cdot 5 + F_z \cdot 3 &= 0 \\ R_{dz} &= \frac{-12 + 2 \cdot 4 \cdot 5 + 4 \cdot 3}{8} = \underline{5 \text{ kN}} \end{aligned}$$

$$\begin{aligned} \sum F_{iz} = 0: R_{az} + R_{dz} - F_z - q \cdot 4 &= 0 \\ 5 + 7 - 4 - 2 \cdot 4 &= 0 \quad \checkmark \end{aligned}$$

$$\begin{aligned} \sum V_{xp} = 0: R_{az} - q \cdot x_p &= 0 \\ 5 - 2x_p &= 0 \rightarrow x_p = \underline{2.5 \text{ m}} \end{aligned}$$

$$\begin{aligned} M_{xp} &= R_{az} \cdot (1 + x_p) + M - q \cdot x_p \cdot \frac{x_p}{2} = \\ &= 5 \cdot 3.5 + 12 - 2 \cdot \frac{2.5^2}{2} = \underline{23.25 \text{ kNm}} \end{aligned}$$

$$VTP^L = R_{az} \cdot 3 + M = 5 \cdot 3 + 12 = 27$$

$$f = \frac{1}{8} \cdot q \cdot l^2 = \frac{1}{8} \cdot 2 \cdot 4^2 = 4$$