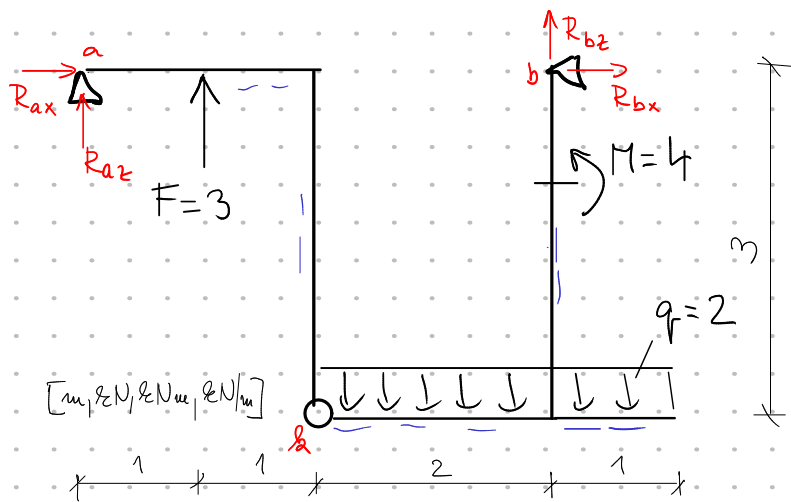




$$\sum M_{ai} = 0 : \oplus \uparrow$$

$$R_{bz} \cdot 4 + M - q \cdot 3 \cdot 3,5 + F \cdot 1 = 0$$

$$R_{bz} = 3,5 \text{ kN}$$

$$\sum M_{bi}^P = 0 : \oplus \downarrow$$

$$R_{bx} \cdot 3 - M + q \cdot 3 \cdot 1,5 - R_{bz} \cdot 2 = 0$$

$$R_{bx} = \frac{2}{3} = 0,6 \text{ kN}$$

$$\sum M_{bi} = 0 : \oplus \downarrow$$

$$R_{az} \cdot 4 + F \cdot 3 - M - q \cdot 3 \cdot 1,5 = 0$$

$$R_{az} = -0,5 \text{ kN}$$

$$\sum M_{ki}^L = 0 : \oplus \downarrow$$

$$R_{ax} \cdot 3 + R_{az} \cdot 2 + F \cdot 1 = 0 \Rightarrow R_{ax} = -\frac{2}{3} \text{ kN}$$

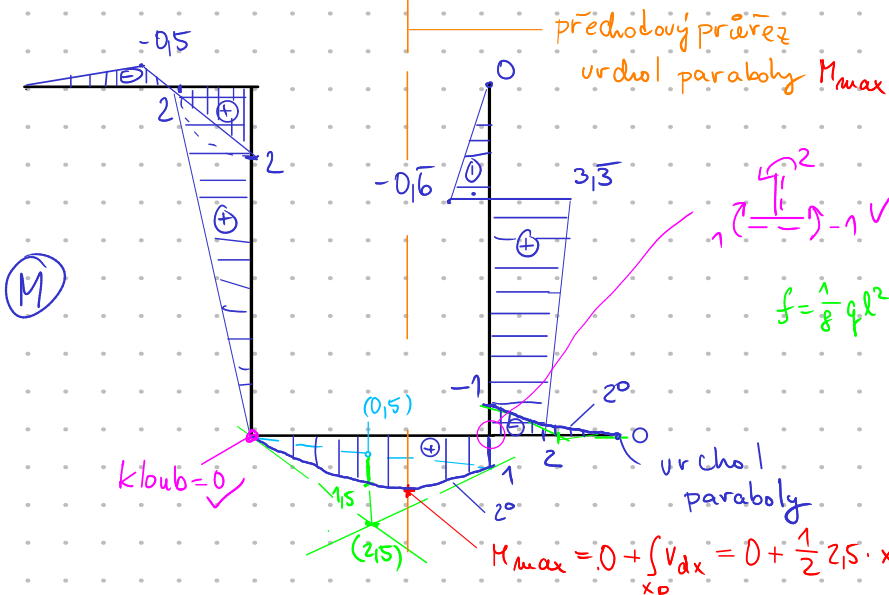
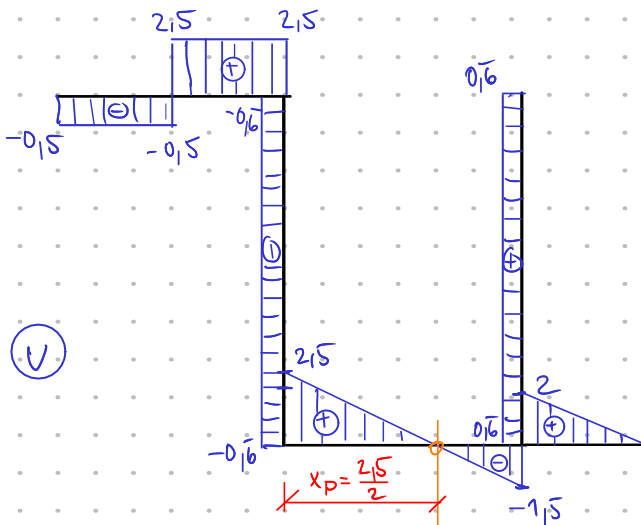
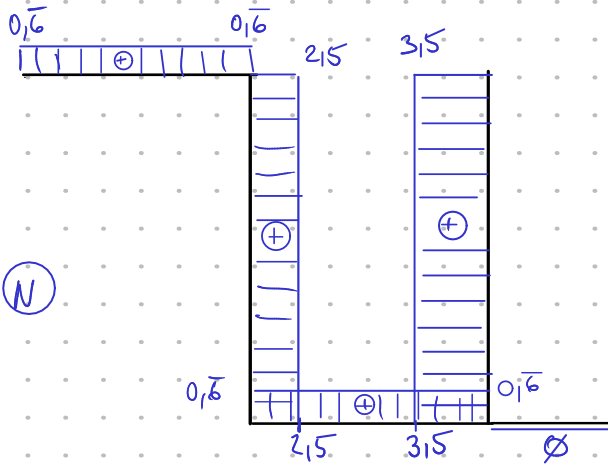
Kontrola:

$$\sum F_{xi} = 0 : \oplus \rightarrow$$

$$R_{ax} + R_{bx} = 0 \checkmark$$

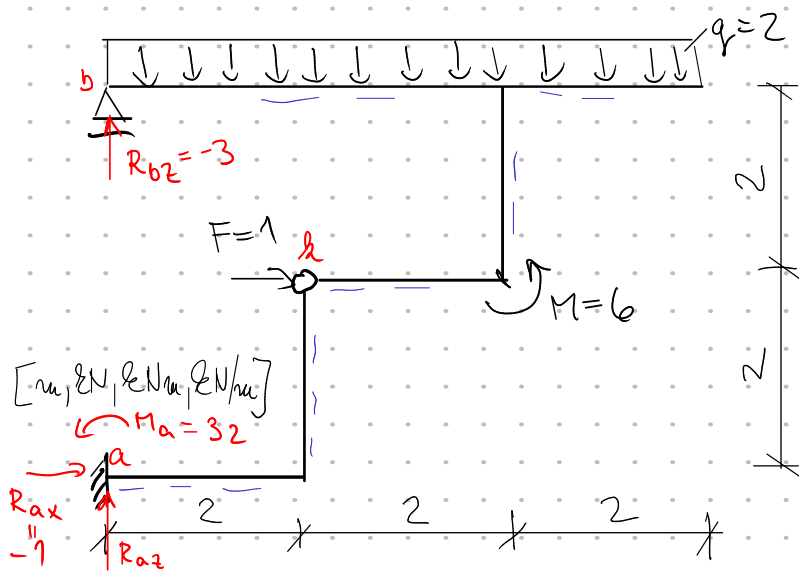
$$\sum F_{zi} = 0 : \oplus \uparrow$$

$$R_{az} + 3 + R_{bz} - q \cdot 3 = 0 \checkmark$$



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

$$M_{max} = 0 + \int v_{dx} = 0 + \frac{1}{2} 2,5 \cdot x_p = \frac{1}{2} \frac{2,5^2}{2} = 1,5625 \text{ kNm}$$



$$\sum F_{xi} = 0 \quad \oplus \rightarrow$$

$$R_{ax} + F = 0 \Rightarrow R_{ax} = -F = -1 \text{ kN}$$

$$\sum M_{xi}^P = 0 : \oplus \downarrow$$

$$R_{bz} \cdot 2 + q \cdot 6 \cdot 1 - M = 0 \Rightarrow R_{bz} = -3 \text{ kN}$$

$$\sum M_{ai} = 0 : \oplus \uparrow$$

$$M_a + M - F \cdot 2 - q \cdot 6 \cdot 3 = 0 \Rightarrow M_a = 32 \text{ kNm}$$

$$\sum M_{zi}^L = 0 : \oplus \downarrow$$

$$R_{az} \cdot 2 - M_a - R_{ax} \cdot 2 = 0 \Rightarrow R_{az} = 15 \text{ kN}$$

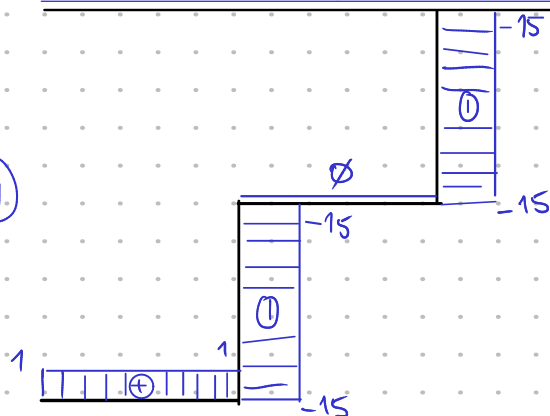
Kontrola: $\oplus \uparrow$

$$\sum F_{zi} = 0 : R_{az} + R_{bz} - q \cdot 6 = 0 \quad \checkmark$$

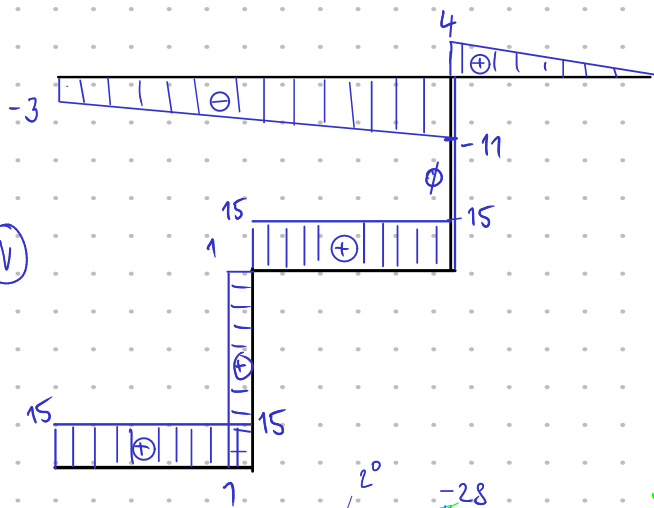
$$\sum M_{bi} = 0 : \oplus \uparrow$$

$$M_a + R_{ax} \cdot 4 + F \cdot 2 + M - q \cdot 6 \cdot 3 = 0 \quad \checkmark$$

(N)

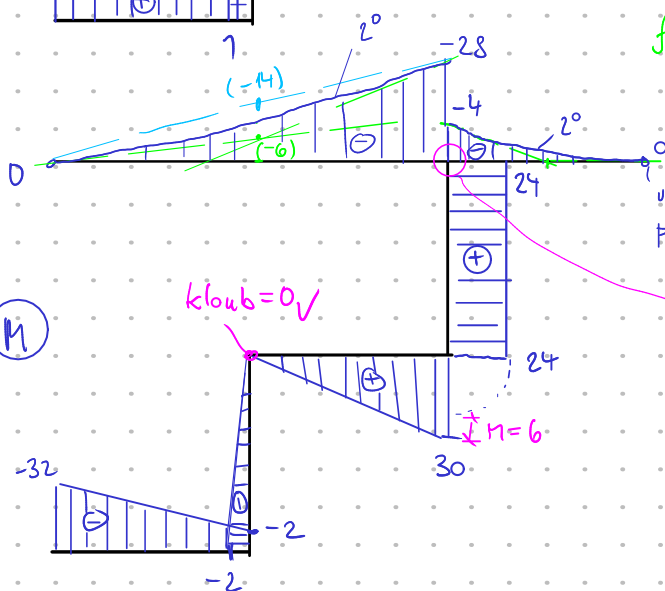


(V)



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

(M)



virtual
parabola

