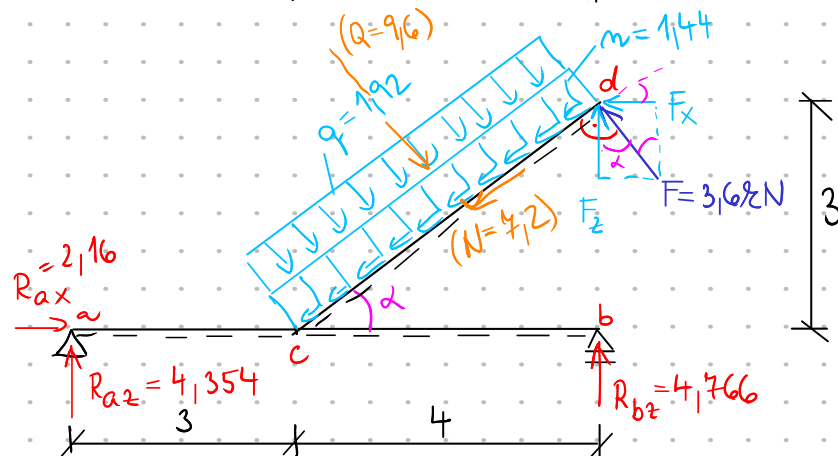
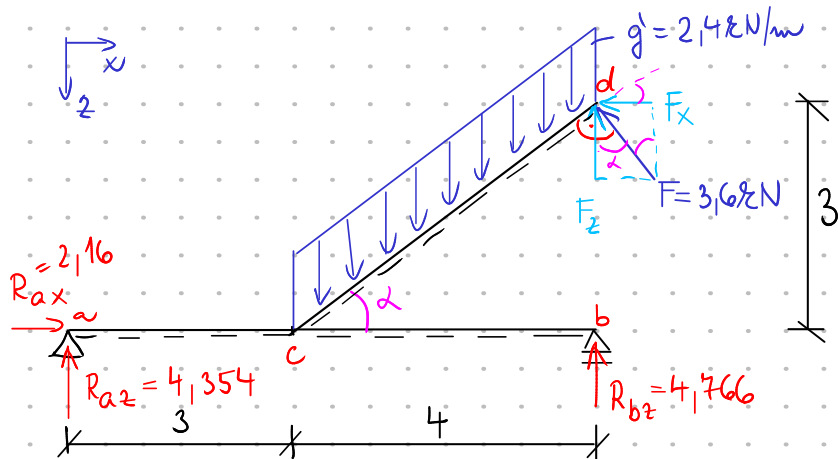




$$l_{cd} = 5m$$

$$\sin \alpha = \frac{3}{5} \quad \cos \alpha = \frac{4}{5}$$

$$F_x = F \cdot \sin \alpha = 3.6 \cdot \frac{3}{5} = 2.16 \text{ kN}$$

$$F_z = F \cdot \cos \alpha = 3.6 \cdot \frac{4}{5} = 2.88 \text{ kN}$$

$$G' = g' \cdot l_{cd} = 2.4 \cdot 5 = 12 \text{ kN}$$

Reakce:

$$\sum F_{xi} = 0 \quad (+ \rightarrow)$$

$$R_{ax} - F_x = 0 \quad R_{ax} = F_x = \underline{2.16 \text{ kN}}$$

$$\sum M_{ai} = 0 \quad (+ \uparrow)$$

$$R_{bz} \cdot 7 + F_z \cdot 4 + F_x \cdot 3 - G' \cdot 5 = 0$$

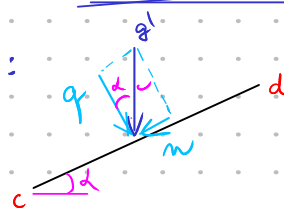
$$R_{bz} = \underline{4.766 \text{ kN}}$$

$$\sum M_{bi} = 0 \quad (+ \downarrow)$$

$$R_{az} \cdot 7 - G' \cdot 2 - F_x \cdot 3 = 0$$

$$R_{az} = \underline{4.354 \text{ kN}}$$

Rozklad g' :

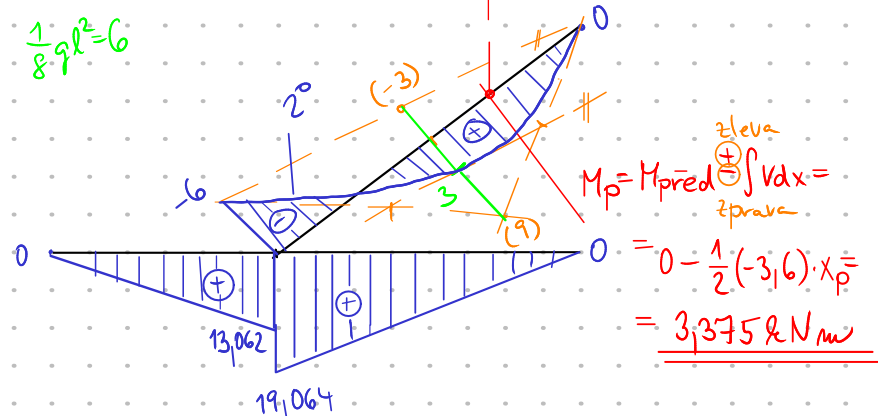
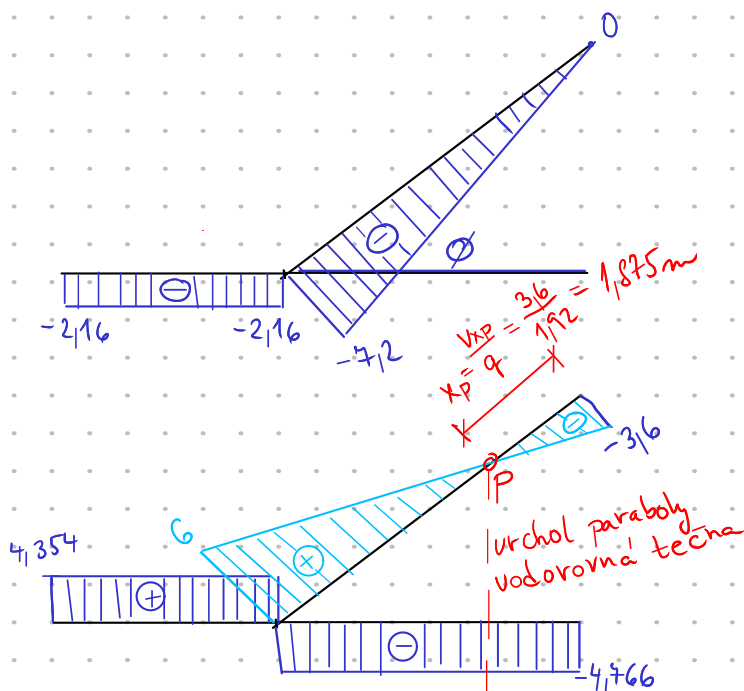


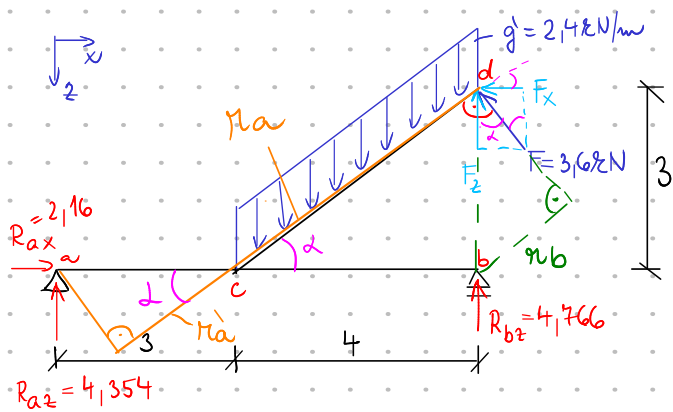
$$q = g' \cos \alpha = 2.4 \cdot \frac{4}{5} = \underline{1.92 \text{ kN/m}}$$

$$n = g' \sin \alpha = 2.4 \cdot \frac{3}{5} = \underline{1.44 \text{ kN/m}}$$

$$Q = q \cdot l_{cd} = 1.92 \cdot 5 = \underline{9.6 \text{ kN}}$$

$$N = n \cdot l_{cd} = 1.44 \cdot 5 = \underline{7.2 \text{ kN}}$$





R_{az} bez rozkładu F

$$\sum M_{bi} = 0 \quad (+) \downarrow$$

$$R_{az} \cdot 7 - G' \cdot 2 - F \cdot r_b = 0$$

$$\frac{r_b}{3} = \sin \alpha \Rightarrow r_b = 3 \sin \alpha = 1.8 \text{ m}$$

$$\underline{R_{az} = 4.354 \text{ kN}}$$

R_{bz} bez rozkładu F

$$\sum M_{bi} = 0 \quad (+) \uparrow \quad R_{bz} \cdot 4 + F \cdot r_a - G' \cdot 5 = 0 \Rightarrow R_{bz} = \underline{4.766 \text{ kN}}$$

$$r_a = l_{cd} + r'_a \quad \frac{r'_a}{3} = \cos \alpha \quad r'_a = 3 \cos \alpha = 2.4 \text{ m}$$

$$r_a = 7.4 \text{ m}$$