

Auflagerkräfte:

$$\sum F_{i,x} = 0: A_x = 16 \text{ kN} \cdot \cos 30^\circ = 13,86 \text{ kN}$$

$$\sum M_{i,B} = 0 \quad A_z \cdot 12 = (6 \cdot 10 + 16 \cdot \sin 30^\circ \cdot 6 + 5 \cdot 3) \text{ kN}$$

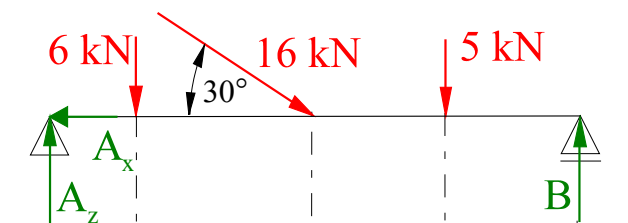
$$A_z = 10,25 \text{ kN}$$

$$A = \sqrt{A_x^2 + A_z^2} = 17,24 \text{ kN}$$

$$F_{i,z} = \sum 0:$$

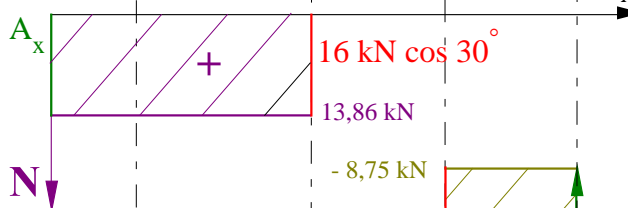
$$B = (6 + 16 \cdot \sin 30^\circ + 5 - 10,25) \text{ kN}$$

$$B = 8,75 \text{ kN}$$



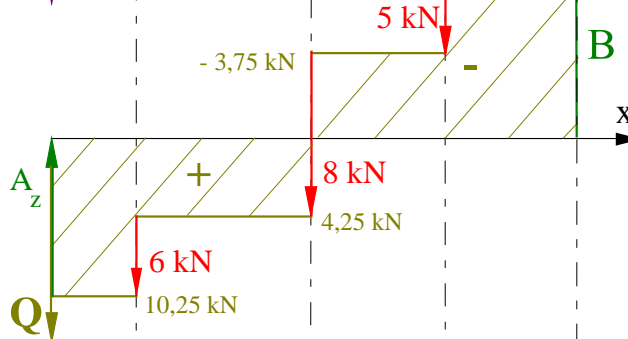
Normalkraft:

$$N(x) = A_x - 16 \text{ kN} \cos 30^\circ \{x - 6\text{m}\}^0$$



Querkraftverlauf:

$$Q(x) = A_z - 6 \text{ kN} \{x - 2\text{m}\}^0 - 8 \text{ kN} \{x - 6\text{m}\}^0 - 5 \text{ kN} \{x - 9\text{m}\}^0$$



Biegemomentenverlauf:

$$M_b(x) = A_z x - 6 \text{ kN} \{x - 2\text{m}\}^1 - 8 \text{ kN} \{x - 6\text{m}\}^1 - 5 \text{ kN} \{x - 9\text{m}\}^1 + C$$

$$M_b(0) = C = 0$$

