

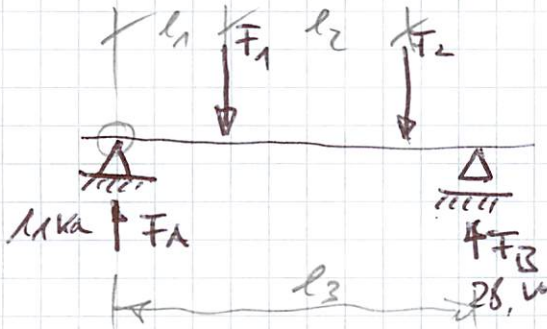
840

$$\frac{\sigma_{bif}}{v} = \sigma_{bzur} > \bar{\sigma}_b = \frac{M_b}{w}$$

841
848 - 850

864 - 867

864 LP Balken



$$\sum M_A = 0$$

$$= -\bar{F}_1 \cdot l_1 - \bar{F}_2 \cdot (l_1 + l_2) + \bar{F}_B \cdot l_3$$

$$\bar{F}_B = \frac{\bar{F}_1 \cdot l_1 + \bar{F}_2 \cdot (l_1 + l_2)}{l_3}$$

$$\bar{F}_B = \frac{10 \text{ kN} \cdot 2 \text{ m} + 30 \text{ kN} \cdot (2 + 3) \text{ m}}{6 \text{ m}}$$

$$= 28,3 \text{ kN}$$

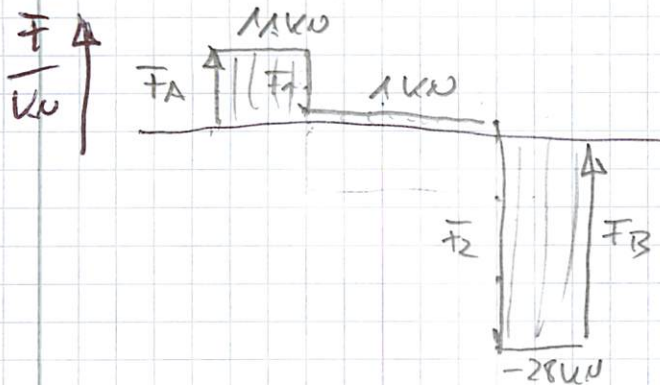
$$\sum F_y = 0 = +\bar{F}_A - \bar{F}_1 - \bar{F}_2 + \bar{F}_B$$

$$\bar{F}_A = \bar{F}_1 + \bar{F}_2 - \bar{F}_B$$

$$= 10 \text{ kN} + 30 \text{ kN} - 28,3 \text{ kN}$$

$$= 11,6 \text{ kN}$$

Querkraftverlauf



Biegemomentenverlauf



$$M_{b\bar{F}_2} (\text{rechts}) = | +\bar{F}_B \cdot (l_3 - l_1 - l_2) |$$

$$= 28,3 \text{ kN} \cdot (6 - 2 - 3) \text{ m} = 28,3 \text{ kNm}$$

$$M_{b\bar{F}_1} (\text{links}) = | -\bar{F}_A \cdot l_1 |$$

$$= | -11,6 \text{ kN} \cdot 2 \text{ m} |$$

$$= 23,3 \text{ kNm}$$

$$= 28,3 \text{ kNm}$$

$$= M_{b\text{max}}$$

Aufg. 865 - 867