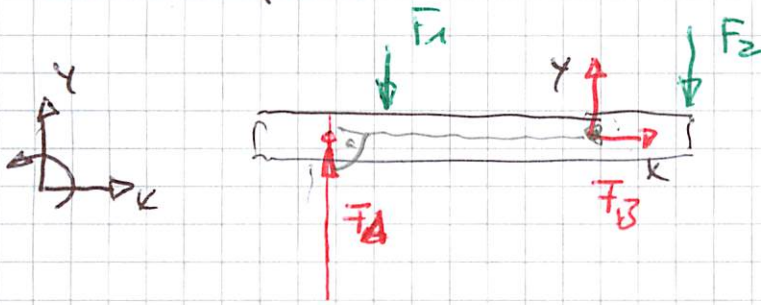


4.1

LS Plattform



$$\overset{\curvearrowright}{\sum} \bar{M}_B = 0 = -\bar{F}_A \cdot (l_1 + l_2 + l_3) + \bar{F}_1 \cdot l_2 - \bar{F}_2 \cdot l_3$$

$$\bar{F}_A = \frac{\bar{F}_1 \cdot l_2 - \bar{F}_2 \cdot l_3}{l_1 + l_2} = \frac{30 \text{ kN} \cdot 2 \text{ m} - 10 \text{ kN} \cdot 1 \text{ m}}{0,5 \text{ m} + 2 \text{ m}} = 20 \text{ kN}$$

$$\uparrow \sum \bar{F}_y = 0 = \bar{F}_A - \bar{F}_1 + \bar{F}_{By} - \bar{F}_2$$

$$\bar{F}_{By} = -\bar{F}_A + \bar{F}_1 + \bar{F}_2 = -20 \text{ kN} + 30 \text{ kN} + 10 \text{ kN} = 20 \text{ kN}$$

$$\rightarrow \sum \bar{F}_x = 0 = +\bar{F}_{Bx}$$

$$\bar{F}_B = \bar{F}_{By}$$