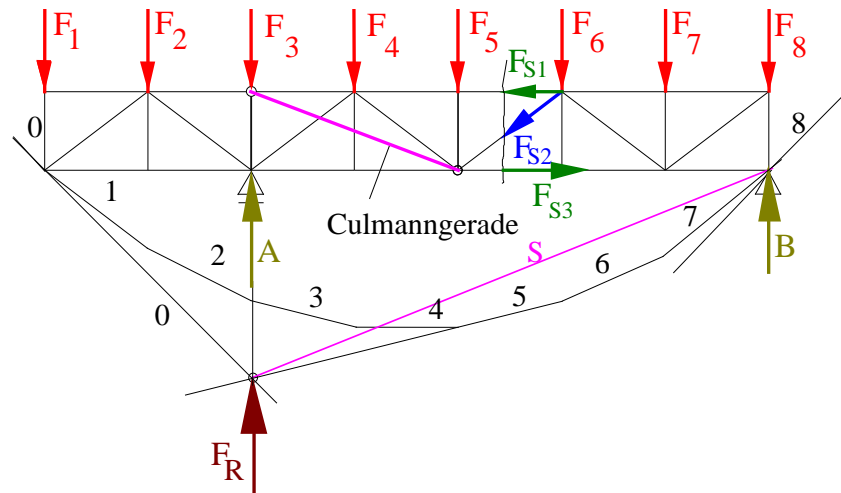
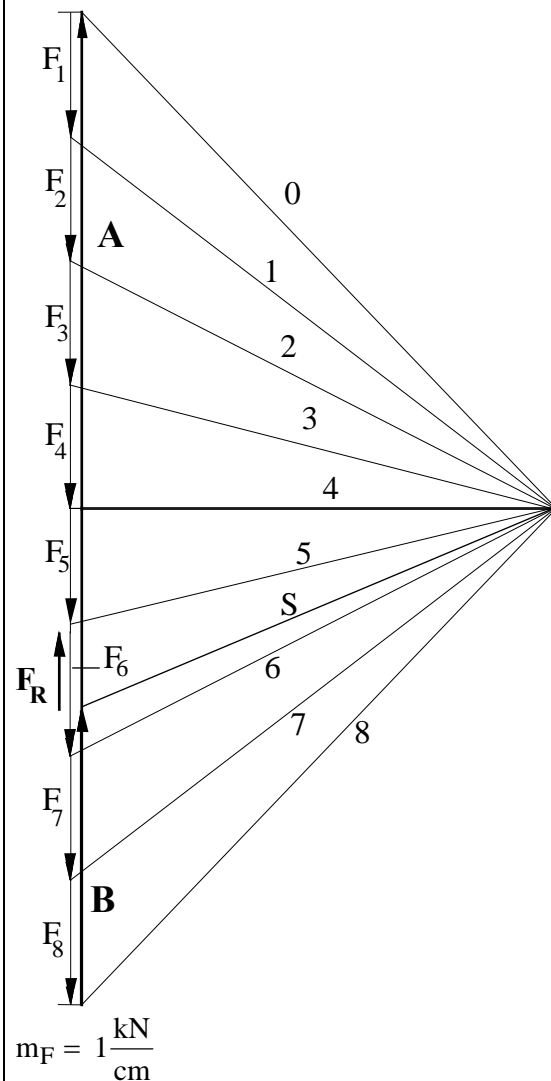


Prof. Günter

Zeichnerische Lösung:

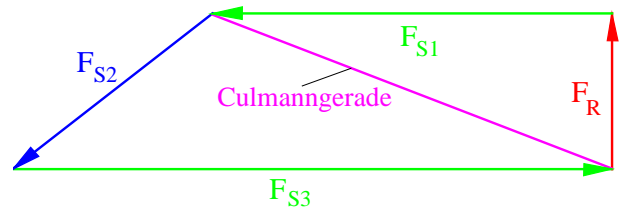


$$m_L = 0,5 \frac{\text{m}}{\text{cm}}$$

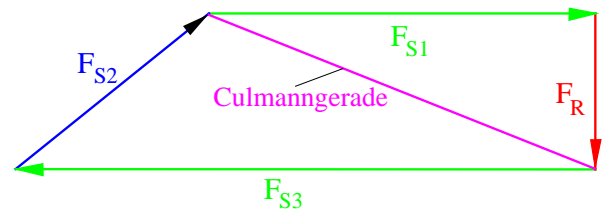


$$m_F = 0,5 \frac{\text{kN}}{\text{cm}},$$

am linken Schnittufer:



am rechten Schnittufer:



$$F_{S1} = - 3,2 \text{ kN} ; F_{S2} = - 2,0 \text{ kN} ; F_{S3} = 4,8 \text{ kN}$$

zu Aufgabe 5, Aufgabenblatt 2:

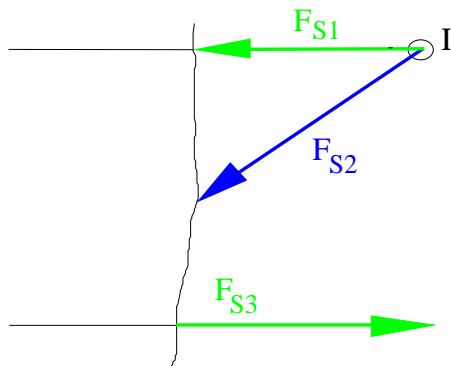
Rechnerische Lösung:

Globales Gleichgewicht:

$$\sum M_{i,A} = 0 :$$

$$B \cdot 5 = 2 \text{ kN} (1 + 2 + 3 + 4 + 5 - 1 - 2)$$

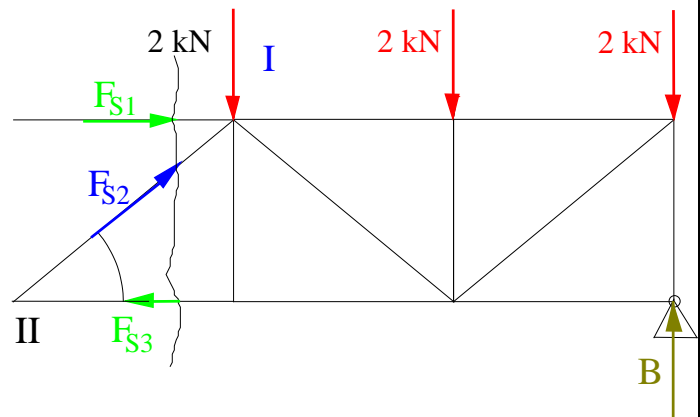
$$B = \frac{2 \text{ kN} \cdot 12}{5} = 4,8 \text{ kN}$$



$$\sum M_{i, I} = 0:$$

$$F_{S3} \cdot 0,75 = B \cdot 2 - 2 \text{ kN} (1 + 2)$$

$$\rightarrow F_{S3} = \frac{B \cdot 2 - 2 \text{ kN} \cdot 3}{0,75} = 4,8 \text{ kN}$$



$$\sum M_{i, II} = 0: \quad F_{S1} \cdot 0,75 = B \cdot 3 - 2 \text{ kN} (1 + 2 + 3)$$

Druckstab:  $F_{S1} = \frac{3 \cdot B - 12 \text{ kN}}{0,75} = 3,2 \text{ kN}$

$$\sum F_{i, X} = 0: \quad \tan \alpha = \frac{0,75}{1} \rightarrow \alpha = 36,87^\circ$$

$$F_{S2} \cdot \cos \alpha = F_{S3} - F_{S1} \rightarrow F_{S2} = \frac{F_{S3} - F_{S1}}{\cos \alpha} = 2 \text{ kN} \quad \text{Druckstab}$$