

$$\sum F_x \rightarrow A_x = 0$$

$$\begin{aligned} \sum M_a &= 0 = -50 \cdot 2,5 + B \cdot 5 - 10 \cdot 6,5 \\ \Rightarrow B &= \frac{140}{5} = 38 \text{ kN} \end{aligned}$$

$$\sum F_z = 0 = -A_z - 38 + 50 + 10$$

$$\Rightarrow A_z = 22 \text{ kN}$$

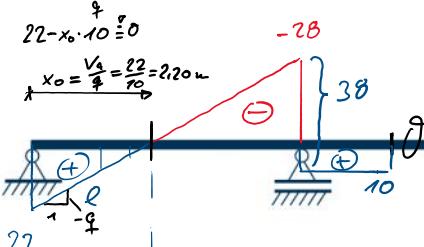
(N)  
[kN]



$$22 - x_0 \cdot 10 = 0$$

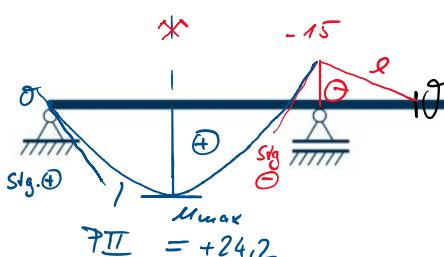
$$x_0 = \frac{V_2}{F_2} = \frac{22}{10} = 2,20 \text{ m}$$

(V)  
[kN]



$$M(x) = V(x)$$

(M)  
[kNm]



[a]  $\sum \delta$   
 $A \uparrow$   $V_q = +A = +22$   
 $= 22$   $M_a = 0$

[b]  $\sum \delta$   
 $0 \rightarrow$   $50$   $M_{be}$   
 $22$   $V_{be}$

$$\sum F_z = 0 = -22 + 50 + V_{be} \Rightarrow V_{be} = -28$$

$$\begin{aligned} \sum M &= 0 = -22 \cdot 5 + 50 \cdot 2,5 + M_{be} \\ \Rightarrow M_{be} &= -15,0 \text{ kNm} \end{aligned}$$

$$R = 2,2 \cdot 10 = 22 \text{ kN}$$

$M_{max}$ :

[CQ]:  $\sum \delta$   
 $M_{ce} = 0$   
 $V_{cq} = 10$   
 $N_{cq}$

[b]  $V_{br} = 10$   
 $M_{br}$

$$\sum M = 0 = -10 \cdot 1,5 - M_{br} \Rightarrow M_{br} = -15 \text{ kNm}$$

$$M_{br} + \underline{1,50}$$

$$\sum M = 0 = -10 \cdot 1,5 - M_{br} \Rightarrow M_{br} = -15 \text{ kNm}$$

## Schnittkräfte | Ermittlung mit Tabellenwerken

