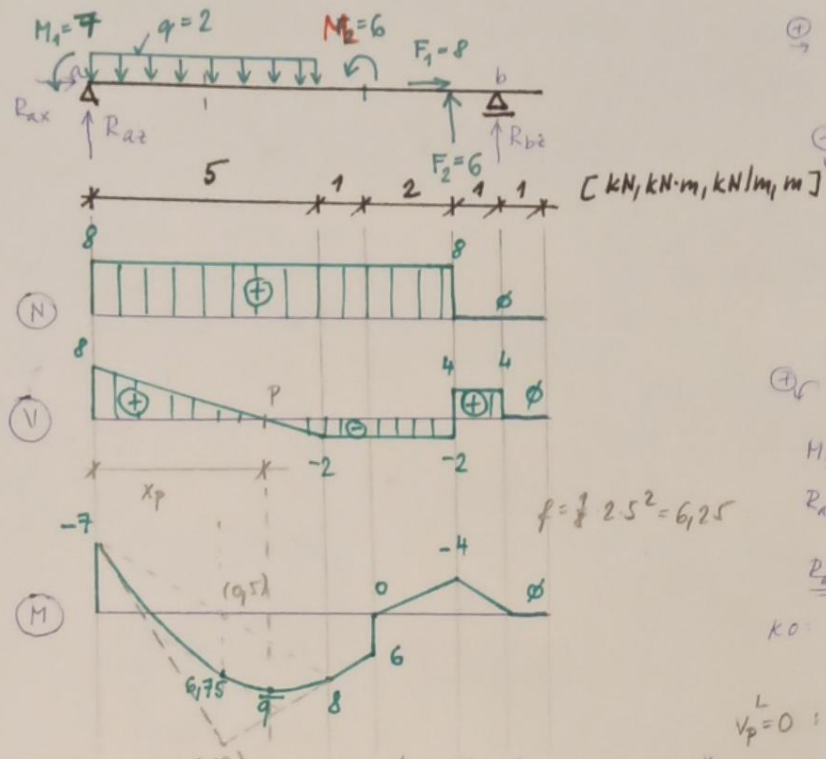


$f = \frac{1}{8} \cdot 2 \cdot 5^2 = 6{,}25$

N, V, M = ?

$\oplus \rightarrow \Sigma F_{ix} = 0 \quad : \quad R_{ax} + F_1 = 0$

$R_{ax} = -F_1 = -8\,kN \ (\leftarrow)$

$\oplus \circlearrowleft \Sigma M_{ia} = 0$

$M_1 - q \cdot 5 \cdot 2{,}5 + M_2 + F_2 \cdot 8 + R_{bz} \cdot 9 = 0$

$R_{bz} = \frac{-7 + 2 \cdot 5 \cdot 2{,}5 - 6 - 6 \cdot 8}{9}$

$R_{bz} = -4\,kN \ (\downarrow)$

$\oplus \circlearrowleft \Sigma M_{ib} = 0$

$M_1 - R_{az} \cdot 9 + q \cdot 5 \cdot 6{,}5 + M_2 - F_2 \cdot 1 = 0$

$R_{az} = \frac{7 + 2 \cdot 5 \cdot 6{,}5 + 6 - 6 \cdot 1}{9}$

$R_{az} = 8\,kN \ (\uparrow)$

kontrola: $\Sigma F_{iz} = 0 \quad R_{az} - q \cdot 5 + F_2 + R_{bz} = 0$

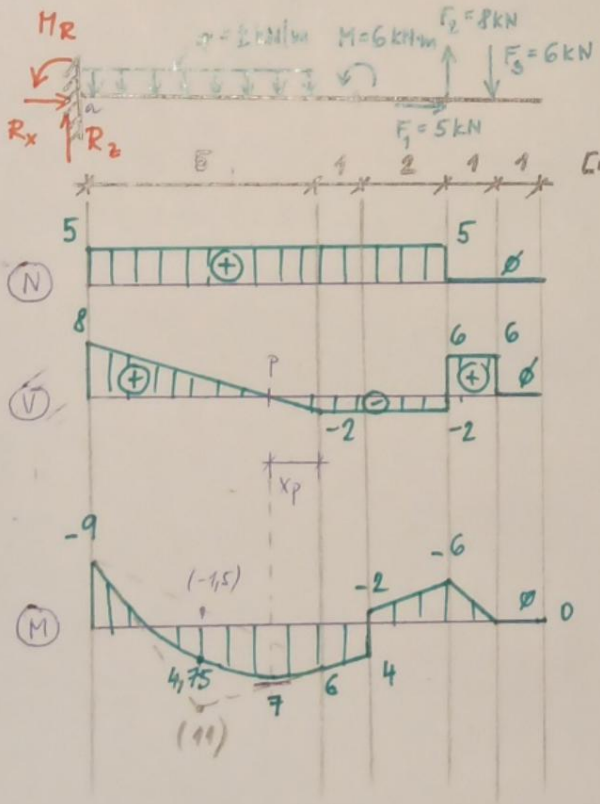
$8 - 2 \cdot 5 + 6 - 4 = 0 \ \checkmark$

$V_p^L = 0 \quad : \quad R_{az} - q \cdot x_p = 0$

$x_p = \frac{R_{az}}{q} = \frac{8}{2} = 4\,m$

$M_p^L = -M_1 + R_{az} \cdot x_p - q \cdot x_p \cdot \frac{x_p}{2}$

$M_p^L = -7 + 8 \cdot 4 - 2 \cdot 4 \cdot 2 = 9\,kNm$



N, V, M = ?

$\oplus \rightarrow \Sigma F_{ix} = 0 \quad R_x + F_1 = 0$

$R_x = -F_1 = -5\,kN \ (\leftarrow)$

$\oplus \uparrow \Sigma F_{iz} = 0 \quad R_z - q \cdot 5 + F_2 - F_3 = 0$

$R_z = 2 \cdot 5 - 8 + 6 = 8\,kN \ (\uparrow)$

$\oplus \circlearrowleft \Sigma M_{ia} = 0 \quad M_R - q \cdot 5 \cdot 2{,}5 + M + F_2 \cdot 8 - F_3 \cdot 9 = 0$

$M_R = 25 \cdot 2{,}5 - 6 - 8 \cdot 8 + 6 \cdot 9$

$M_R = 9\,kNm \ (\circlearrowleft)$

$V_{x_p}^P = 0 \quad : \quad F_3 - F_2 + q \cdot x_p = 0$

$6 - 8 + 2 \cdot x_p = 0$

$x_p = 1\,m$

$V_{TP} = -F_3 \cdot 6{,}5 + F_2 \cdot 5{,}5 + M =$

$= -6 \cdot 6{,}5 + 8 \cdot 5{,}5 + 6 = 11$

$M_p^P = -F_3 \cdot (4+1) + F_2 \cdot (3+1) + M - q \cdot 1 \cdot \frac{1}{2} =$

$= -6 \cdot 5 + 8 \cdot 4 + 6 - 2 \cdot 0{,}5 = 7\,kNm$

$f = \frac{1}{8} \cdot 2 \cdot 5^2 = 6{,}25$