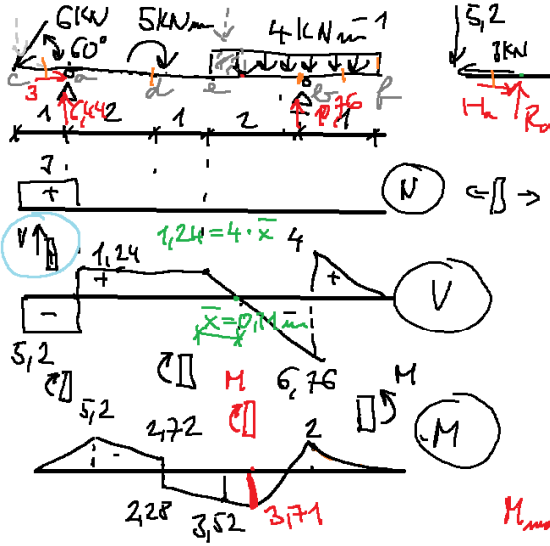
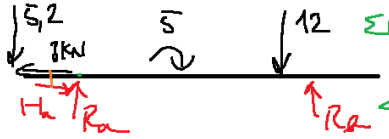




$\Sigma M_A = 0 \quad 5{,}2 \cdot 1 - 5 - 12 \cdot 4{,}5 + R_B \cdot 5 = 0$

$R_B = 10{,}76\ \text{kN}$

$\Sigma M_B = 0 \quad 5{,}2 \cdot 6 - R_A \cdot 5 - 5 + 12 \cdot 0{,}5 = 0$

$R_A = 6{,}44$

$\Sigma F_z = 0 \quad -5{,}2 + 6{,}44 - 12 + 10{,}76 = 0$ ✓

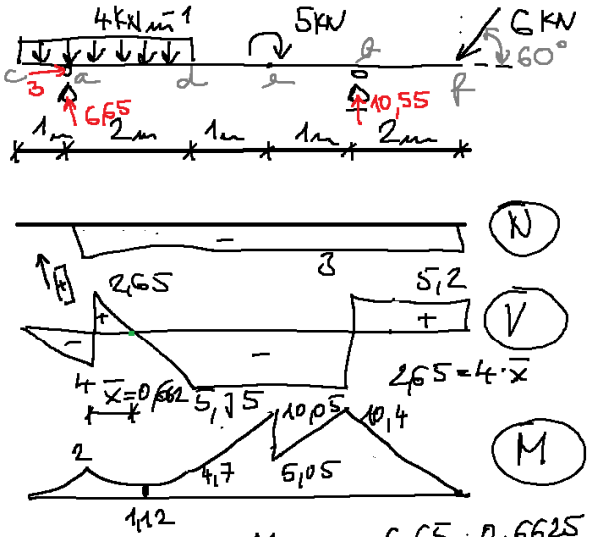
$^{L}M_d = -5{,}2 \cdot 3 + 6{,}44 \cdot 2 = -2{,}72$

$^{R}M_d = {}^{L}M_d + 5 = 2{,}28$

$^{L}M_e = -5{,}2 \cdot 4 + 6{,}44 \cdot 3 + 5 = 3{,}52$

$^{R}M_B = \underbrace{-4 \cdot 1}_{[\text{kN}]} \cdot \underbrace{0{,}5}_{[\text{m}]} = -2$

$M_{max} = -5{,}2 \cdot 4{,}31 + 6{,}44 \cdot 3{,}71 + 5 - \underbrace{4 \cdot 0{,}31}_{Q\ [\text{kN}]} \cdot \underbrace{\frac{0{,}31}{2}}_{\text{Raum}\ [\text{m}]} = 3{,}71\ \text{kNm}$



$R_A = 6{,}65\ \text{kN} \qquad H_A = 8\ \text{kN}$

$R_B = 10{,}55\ \text{kN}$

$^{R}M_e = -5{,}2 \cdot 3 + 10{,}55 \cdot 1 = -5{,}05\ \text{kNm}$

$^{R}M_B = -5{,}2 \cdot 2 = -10{,}4\ \text{kNm}$

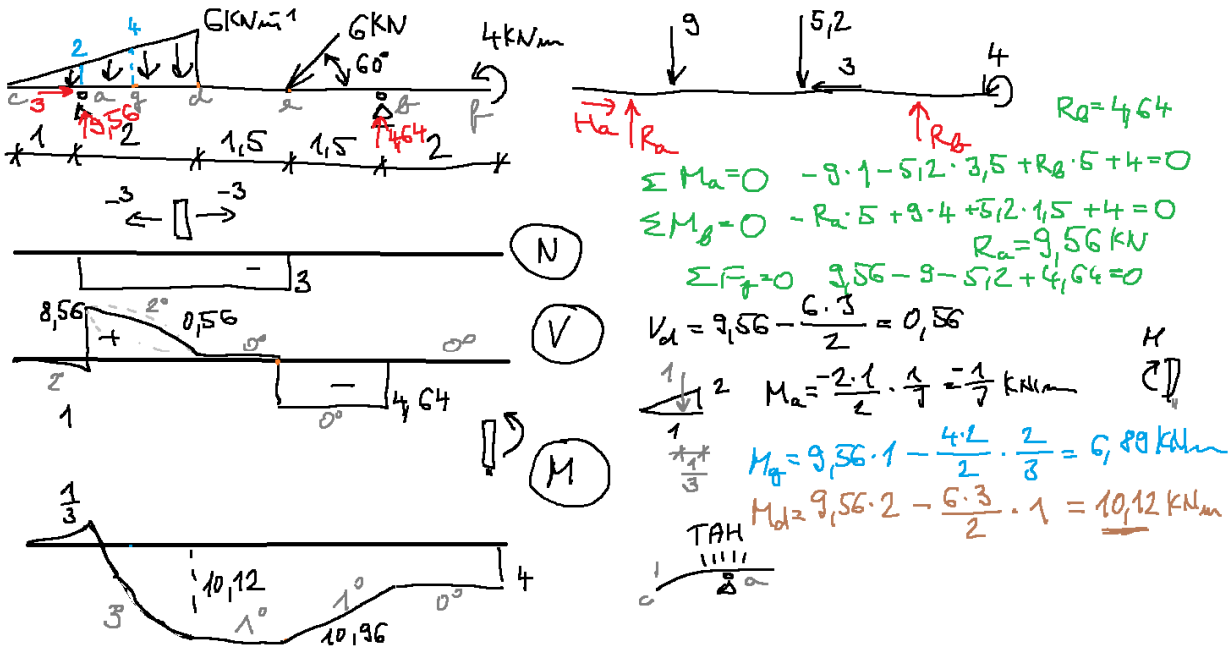
$^{L}M_d = -4 \cdot 3 \cdot 1{,}5 + 6{,}65 \cdot 2 = -4{,}7\ \text{kNm}$

$^{L}M_e = -10{,}05\ \text{kNm}$

$2{,}65 = 4 \cdot \bar{x}$

$M_{max} = 6{,}65 \cdot 0{,}6625 - 4 \cdot 1{,}6625 \cdot \frac{1{,}6625}{2}$

$= -1{,}12\ \text{kNm}$



DÚ vložit do Teams spolu s třemi příklady z 9.3., termín 13.3.