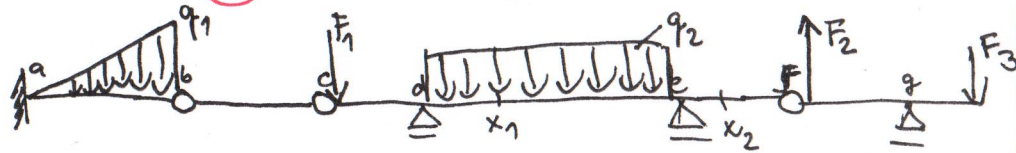
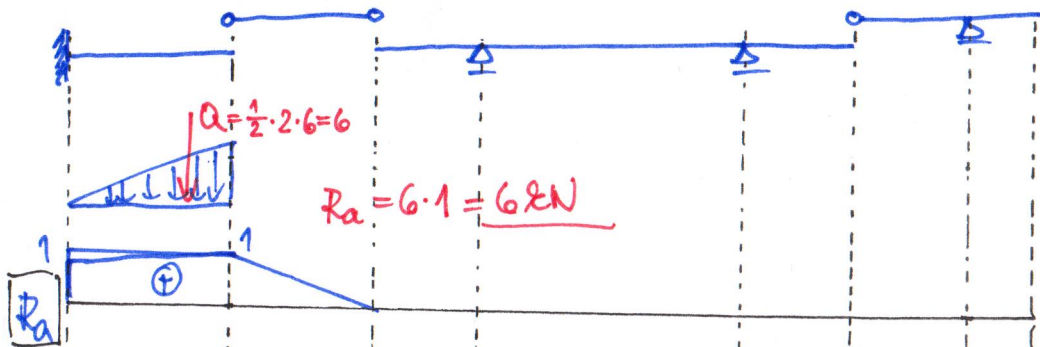


③

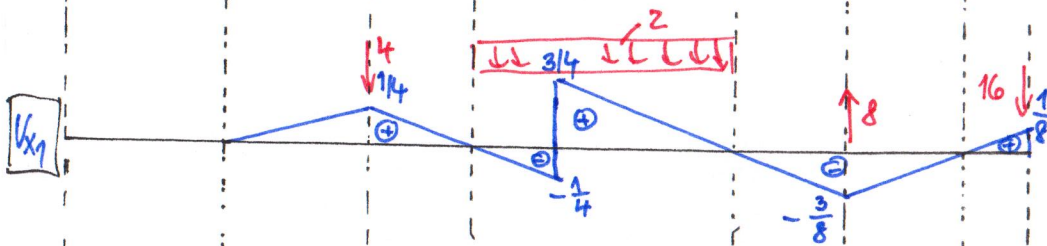
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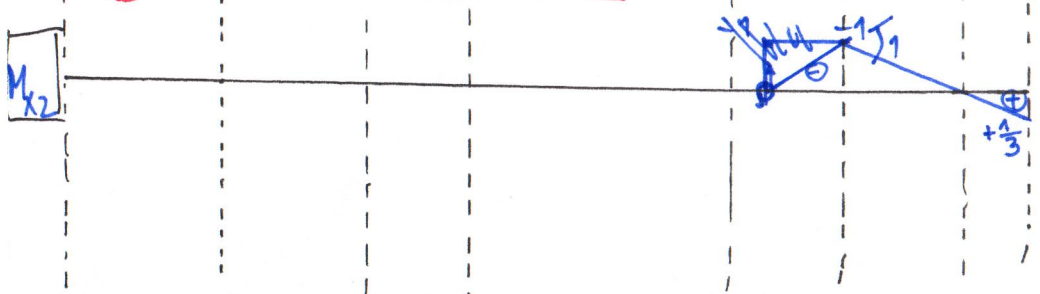
[m] 2 2 1 1 3 0.5 1 1.5 0.5
 $q_1 = 6 \text{ kN/m}$ $F_1 = 4 \text{ kN}$ $q_2 = 2 \text{ kN/m}$ $F_2 = 8 \text{ kN}$ $F_3 = 16 \text{ kN}$



$V_{x1} = \frac{1}{4} \cdot 4 + \frac{3}{8} \cdot 8 + 16 \cdot \frac{1}{8} + \frac{2}{4} \cdot 2 \cdot 2 = 8 \text{ kN}$

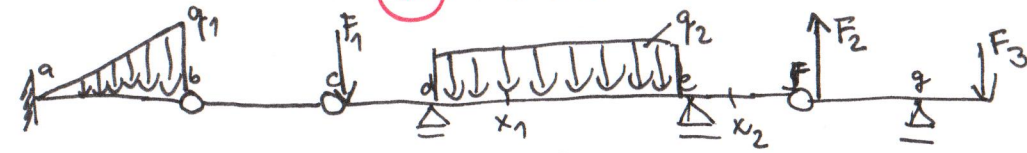


$M_{x2} = 8 \cdot 1 + \frac{16}{3} = 13,3 \text{ kNm}$

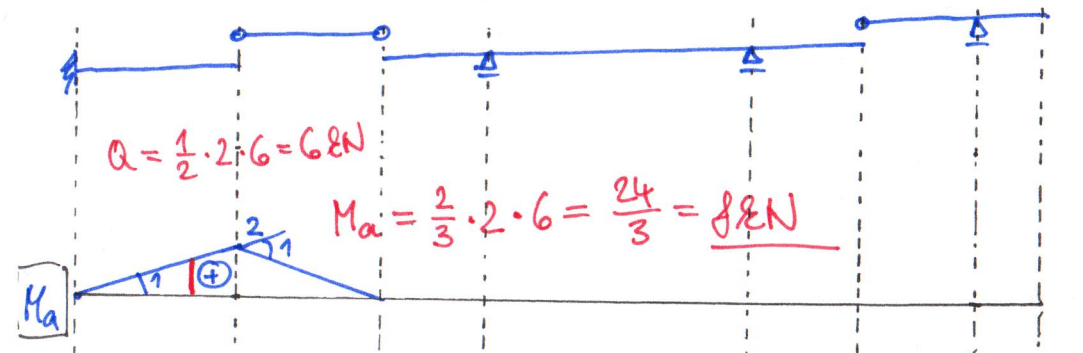


①

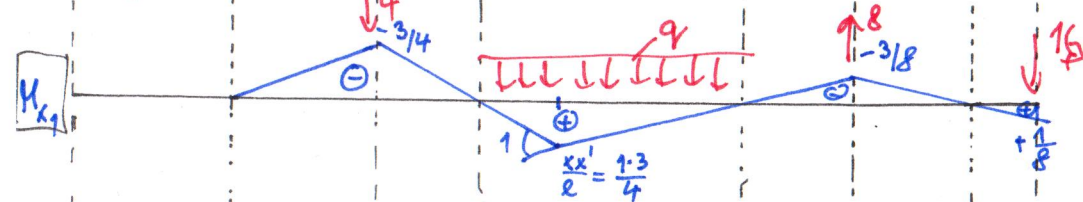
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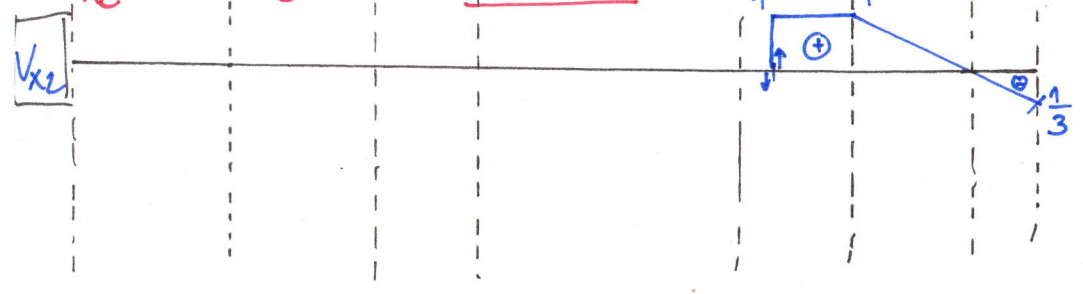
[m] 2 2 1 1 3 0.5 1 1.5 0.5
 $q_1 = 6 \text{ kN/m}$ $F_1 = 4 \text{ kN}$ $q_2 = 2 \text{ kN/m}$ $F_2 = 8 \text{ kN}$ $F_3 = 16 \text{ kN}$



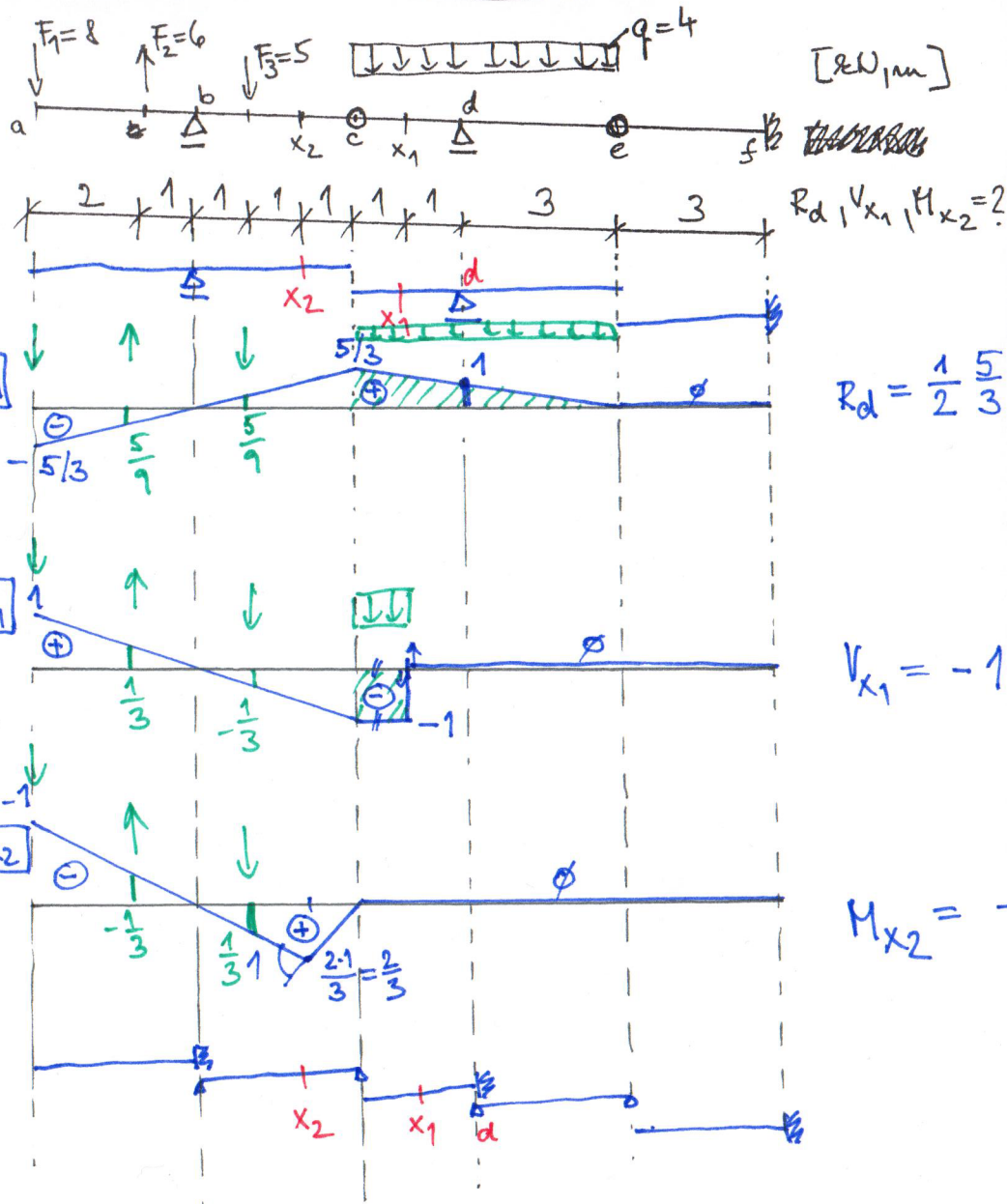
$M_{x1} = -\frac{3}{4} \cdot 4 + \frac{3}{8} \cdot 8 + 16 \cdot \frac{1}{8} + \frac{1}{2} \cdot 3 \cdot 4 \cdot 2 = 5 \text{ kNm}$



$V_{x2} = -8 - \frac{1}{3} \cdot 16 = -13,3 \text{ kN}$



VITE NO:



$$R_d = \frac{1}{2} \cdot \frac{5}{3} \cdot 5 \cdot q - \frac{5}{3} \cdot F_1 - (-F_2) \cdot \frac{5}{9} + \frac{5}{9} F_3 =$$

$$= \frac{3 \cdot 5 \cdot 5 \cdot 2 - 3 \cdot 5 \cdot 8 + 6 \cdot 5 + 5 \cdot 5}{9} = \frac{85}{9} = \underline{\underline{9.4 \text{ kN}}}$$

$$V_{x_1} = -1 \cdot 1 \cdot q + 1 \cdot F_1 - \frac{1}{3} F_2 - \frac{1}{3} F_3 =$$

$$= \frac{-4 + 8 \cdot 3 - 6 - 5}{3} = \frac{1}{3} = \underline{\underline{0.3 \text{ kN}}}$$

$$M_{x_2} = -1 \cdot F_1 - (-F_2) \cdot \frac{1}{3} + F_3 \cdot \frac{1}{3} =$$

$$= \frac{-3 \cdot 8 + 6 + 5}{3} = \frac{-13}{3} = \underline{\underline{-4.3 \text{ kNm}}}$$