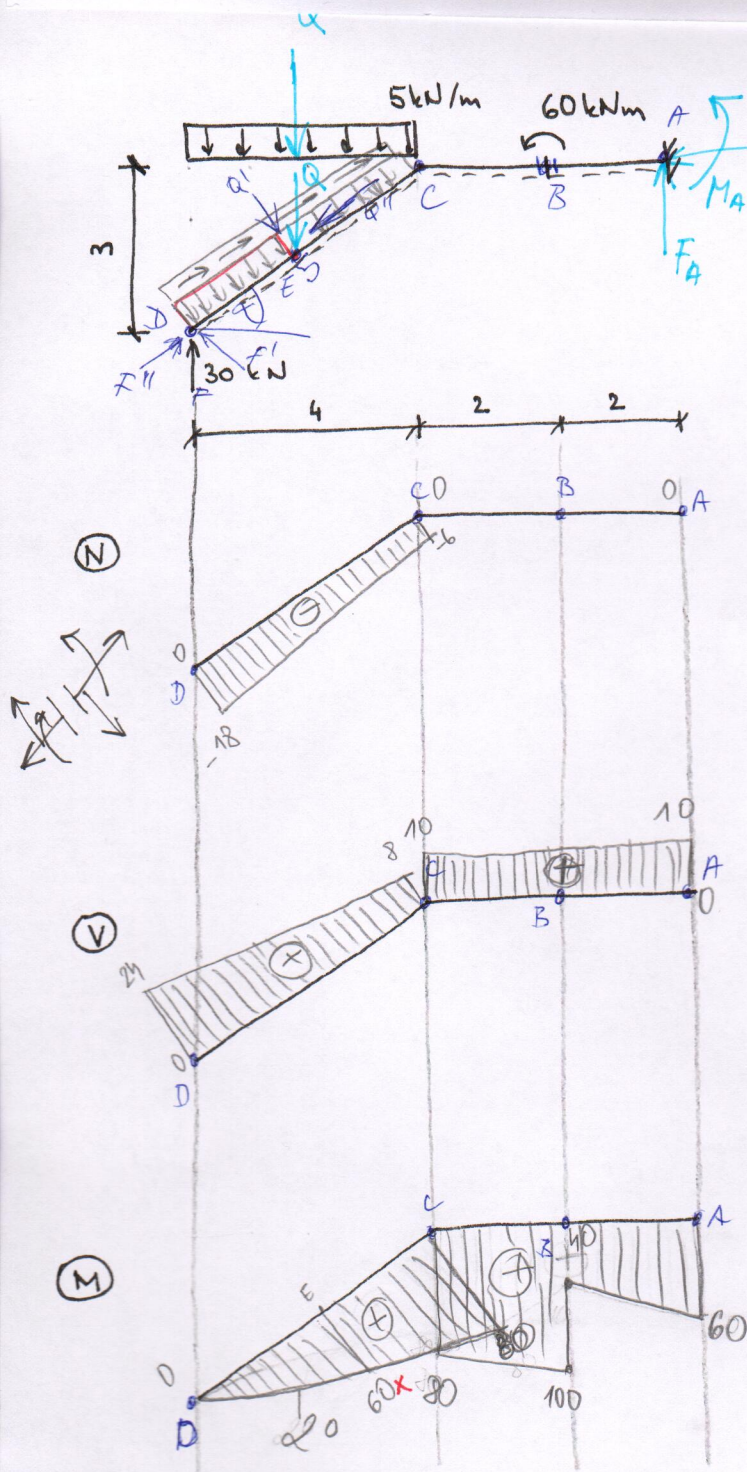




$$\cos \alpha = \frac{4}{5} = 0.8 \quad Q = 5 \cdot 4 = 20 \text{ kN}$$

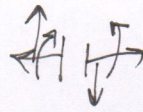
$$\sin \alpha = \frac{3}{5} = 0.6$$

$$Q' = 16 \quad Q'' = 12 \quad 6 = 0.8 \cdot 20 = 16$$

$$Q'' = 0.6 \cdot 20 = 12$$

$$F' = 0.8 \cdot 30 = 24$$

$$F'' = 0.6 \cdot 30 = 18$$



$$\oplus \rightarrow \sum F_{ix} = 0$$

$$N_A = 0 \text{ kN}$$

$$\oplus \uparrow \sum F_{iz} = 0$$

$$-30 + Q - F_A = 0$$

$$F_A = -30 + 20$$

$$F_A = -10 \text{ kN}$$

$$\oplus \curvearrowright \sum M_A = 0$$

$$+30 \cdot 8 - Q \cdot 6 - 60 - M_A = 0$$

$$M_A = 240 - 120 - 60$$

$$M_A = 60 \text{ kNm}$$

Kontrol:

$$\sum M_D = 0$$

$$+30 \cdot 4 - Q \cdot 2 - 60 - F_A \cdot 4 - M_A = 0$$

$$120 - 40 - 60 - (-40) = M_A$$

$$M_A = 60 \text{ kNm}$$

$$\textcircled{N} N_D^L = 0$$

$$N_D^P = -F'' = -18$$

$$N_C^L = -18 + Q'' = -18 + 12 = -6$$

$$\textcircled{V} V_D^L = 0$$

$$V_D^P = +F' = +24$$

$$V_C^L = +F' - Q' = +24 - 16 = 8$$

$$V_C = 30 - Q = 30 - 20 = 10$$

$$V_B = 10$$

$$V_A^L = 10$$

$$V_A^P = 10 + (-10) = 0$$

$$M_E = F' \cdot 2.5 = 24 \cdot 2.5 = 60$$

$$M_B^L = 30 \cdot 6 - 20 \cdot 4 = 180 - 80 = 100$$

$$M_B^P = +60 + (-10) \cdot 2 = 40$$

$$\textcircled{M} M_D = 0$$

$$M_C = +F' \cdot 5 - Q' \cdot 2.5 = 24 \cdot 5 - 16 \cdot 2.5 = 120 - 40 = 80$$

$$M_C = 30 \cdot 4 - 20 \cdot 2 = 120 - 40 = 80$$

$$M_B = 30 \cdot 6 - 20 \cdot 4 - 60 = 40$$

$$M_A^* = 30 \cdot 8 - 20 \cdot 6 - 60 = 60$$

$$(M_A^P = +60) \quad (M_A^L = +60)$$