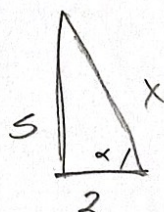
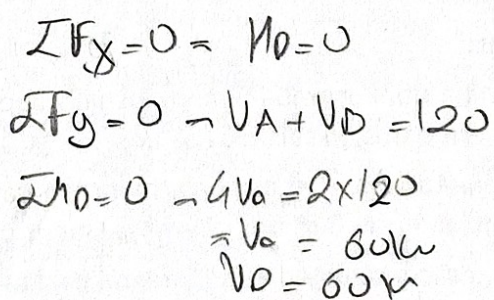
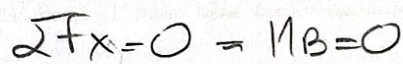


Καουκι



$$x^2 = 2^2 + 5^2$$
$$\Rightarrow x = 5,385$$

$$\sin \alpha = \frac{5}{5,395} = 0,929$$

$$\cos \alpha = \frac{2}{5,395} = 0,371$$

$$\sum F_y = 0 \Rightarrow V_c + V_e + 0,929 S_{57} = 210 \quad (1)$$

$$\sum F_x = 0 \Rightarrow H_e = 0,371 S_{57}$$

$$\sum M_e = 0 \Rightarrow (S_{57} \times 0,929 \times 2) + H_c = 3,5 \times 210$$

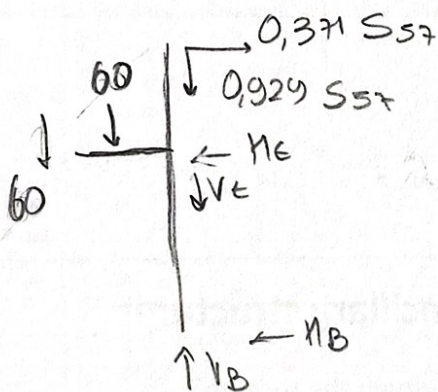
$$\Rightarrow 1,858 S_{57} + H_c = 735$$

$$\Rightarrow S_{57} = \frac{735 - H_c}{1,858}$$

$$(1) \Rightarrow V_c + V_e + 0,5(735 - H_c) = 210$$

$$\Rightarrow V_c + V_e + 367,5 - 0,5 H_c = 210$$

$$\Rightarrow V_e - 0,5 H_c = -157,5$$



$$\sum F_y = 0 \Rightarrow V_b - V_e - 0,929 S_{57} = 120$$

$$\sum F_x = 0 \Rightarrow H_e + H_b = 0,371 S_{57} \Rightarrow H_e = 0,371 S_{57}$$

$$\sum M_b = 0 \Rightarrow -(60 \times 2) + (60 \times 1) + 5 H_e - 3,71 S_{57} = 0$$

$$\Rightarrow 100 + 5 H_e - 3,71 S_{57} = 0$$

$$\Rightarrow 100 + 5 \times 0,371 S_{57} - 3,71 S_{57} = 0$$

$$\Rightarrow 100 = 1,855 S_{57} \Rightarrow S_{57} = 97,04 \text{ kN}$$

$$\text{Ap: } V_e = \frac{735 - 1,858 \times 97,4}{1,858} = 79,2 \text{ kN}$$

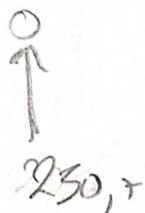
$$V_E = 1,57,5 + 2,5 \times 79,2 = 60,5 \text{ kV}$$

$$V_B = 120 - (2,5 \times 79,2) = 13,5 \text{ kV}$$

$$\text{Ap: } V_M = 120 + (0,929 \times 97,09) + 90,5$$

$$\Rightarrow V_B = 250,7 \text{ kV}$$

$$60 + 79,2 + 250,7 = 390 \text{ OK}$$



$$N_B = -250, r$$

$$Q = M = \emptyset$$

7-7

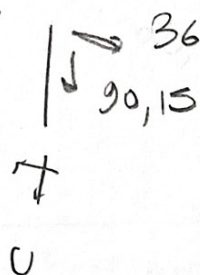
$$N_E^k = -250, r$$

$$Q = M = \emptyset$$

5-3

K'

6-6

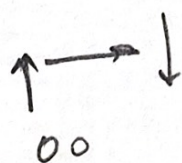


$$Q_F = +36 k, N_F = -90, 15$$

$$Q_{E^n} = +36, N_{E^n} = -9, 15$$

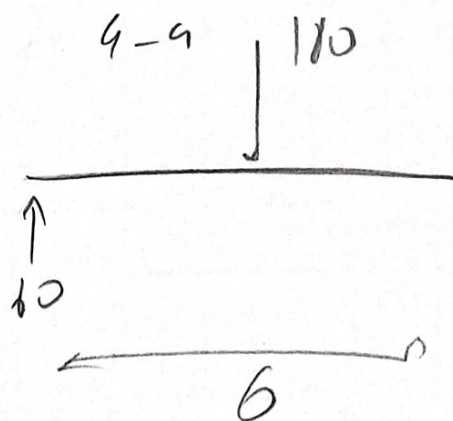
$$M_{E^n} = -36 \times 5 = -180 k \cdot m$$

3-3



$$Q_A = +60, N_A = 0$$

$$M = 0$$



$$Q_c^a = -120$$

$$M_c^a = (60 \times 6) - (110 \times 3)$$

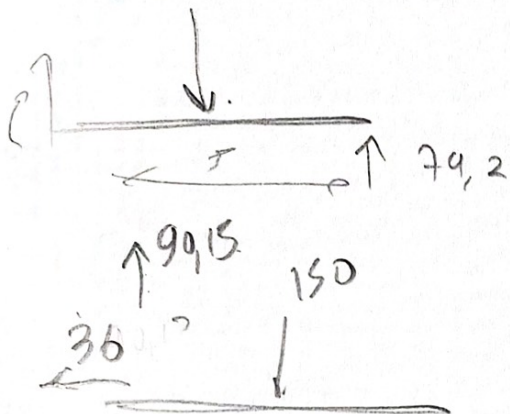
$$= -110$$

1-1



$$Q_c = -79,2$$

150

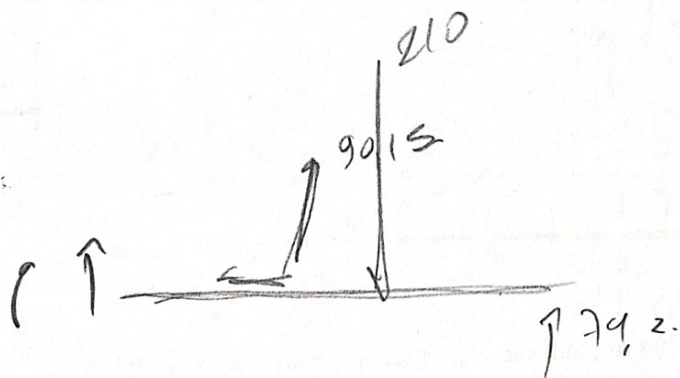


$$Q_a = +79,2$$

$$M_a = (79,2 \times 5) - (150 \times 2,5) = 21$$

$$N_c = -36$$

$$Q_c = -19,3$$



$$Q = +60,67$$

$$M = -210 \times 3,5$$

$$+90 \times 2 + 79,2 \times 1$$

=

