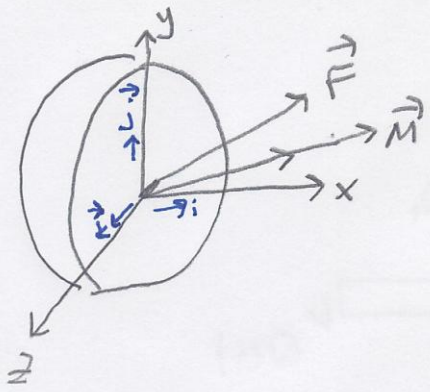
Kesit Tesirleri, İsaret ve Yönleri:



$$\vec{F} = f_x\vec{i} + f_y\vec{j} + f_z\vec{k}$$

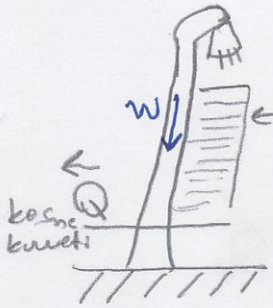
$$\vec{M} = M_x\vec{i} + M_y\vec{j} + M_z\vec{k}$$

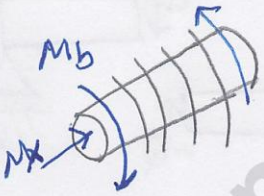
1) F_x : Normal kuvvet (N).

2) F_y, f_z = Kesme Kuvveti

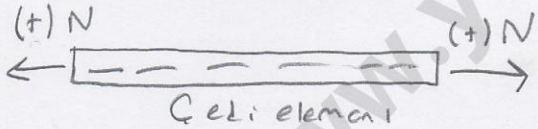
3) M_x = Burulma (Döndürme Moment)

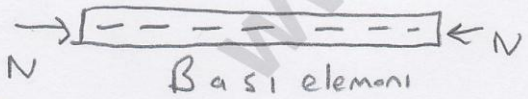
4) M_y, M_z = Eğilme Momenti



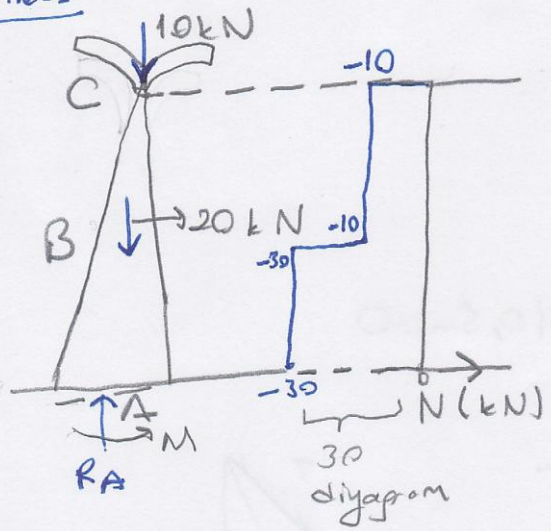


1) Normal Kuvvet = (N)





Örnek:



$$M = 0$$

$$\uparrow \Sigma f_y = 0$$

$$-10 - 20 + R_A = 0$$

$$\uparrow R_A = 30\,kN$$

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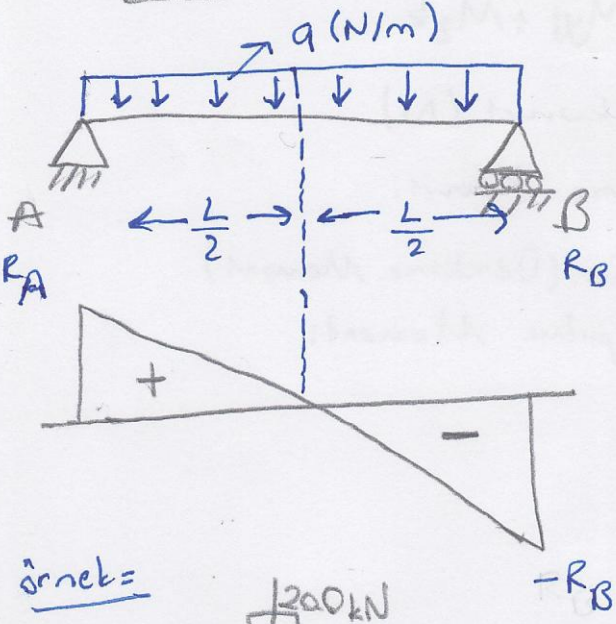
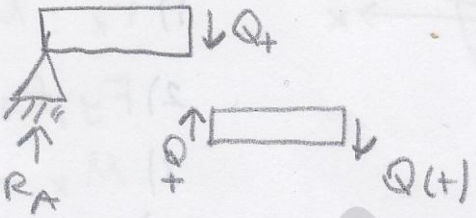
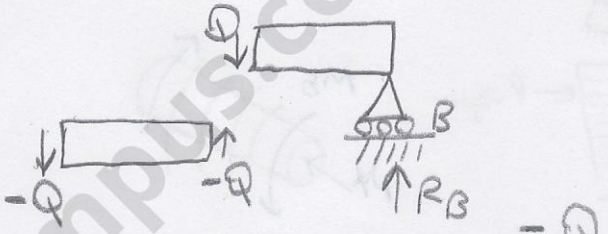
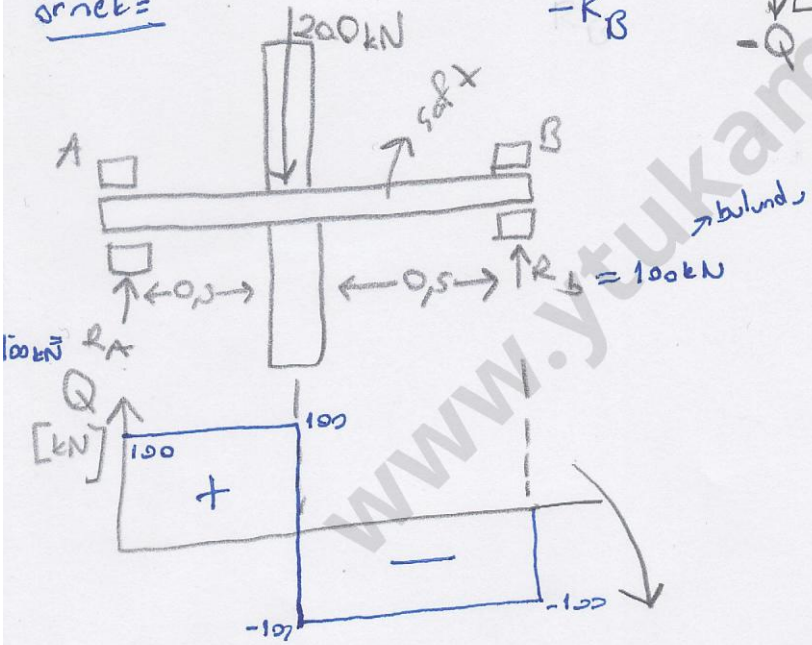
2) Kesme Kuvveti

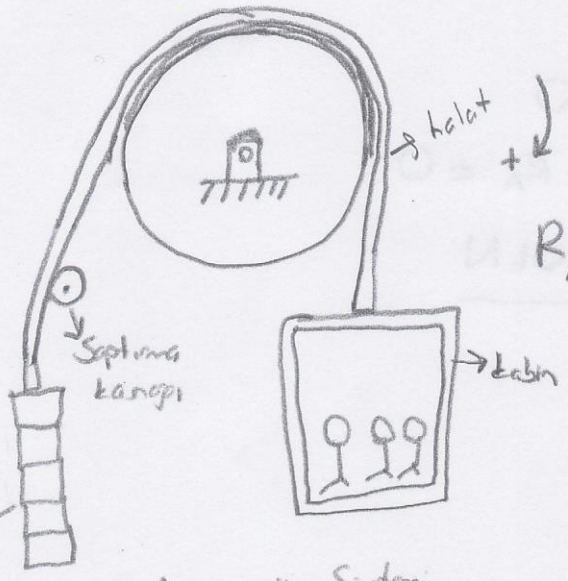






Örnek:





Asansör Sistemi

$+\circlearrowleft \Sigma M_B = 0$

$R_A(1m) - (200)(0,5m) = 0$

$\boxed{R_A = 100kN}$

$+\uparrow \Sigma F_y = 0$

$100 - 200 + R_B = 0$

$\boxed{R_B = 100kN}$

200kN verilmiş

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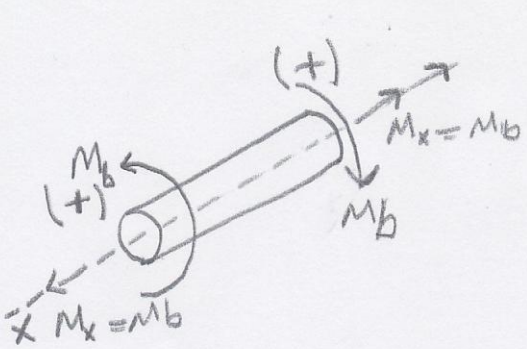
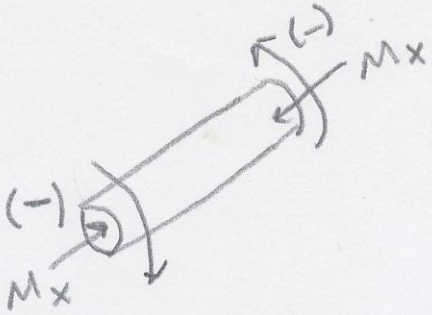
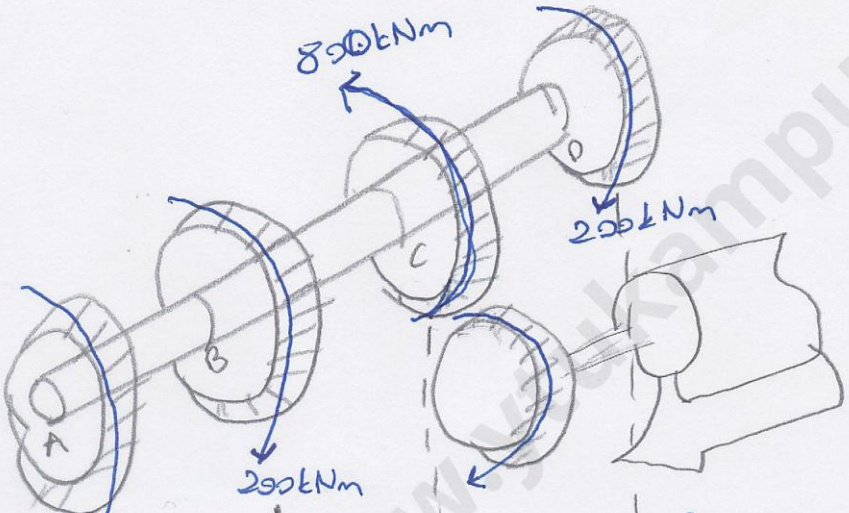
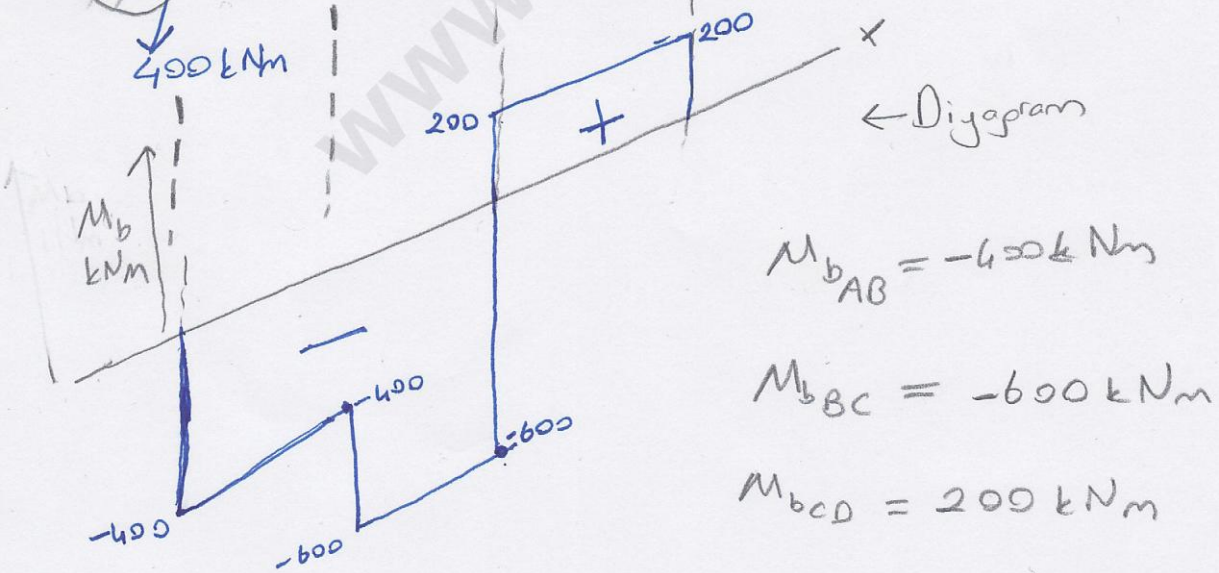
3) Burulma Momenti





Sağ El kuralı (Yön Bulma)





← Diyagram

$M_{b_{AB}} = -400\,kNm$

$M_{b_{BC}} = -600\,kNm$

$M_{b_{CD}} = 200\,kNm$

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