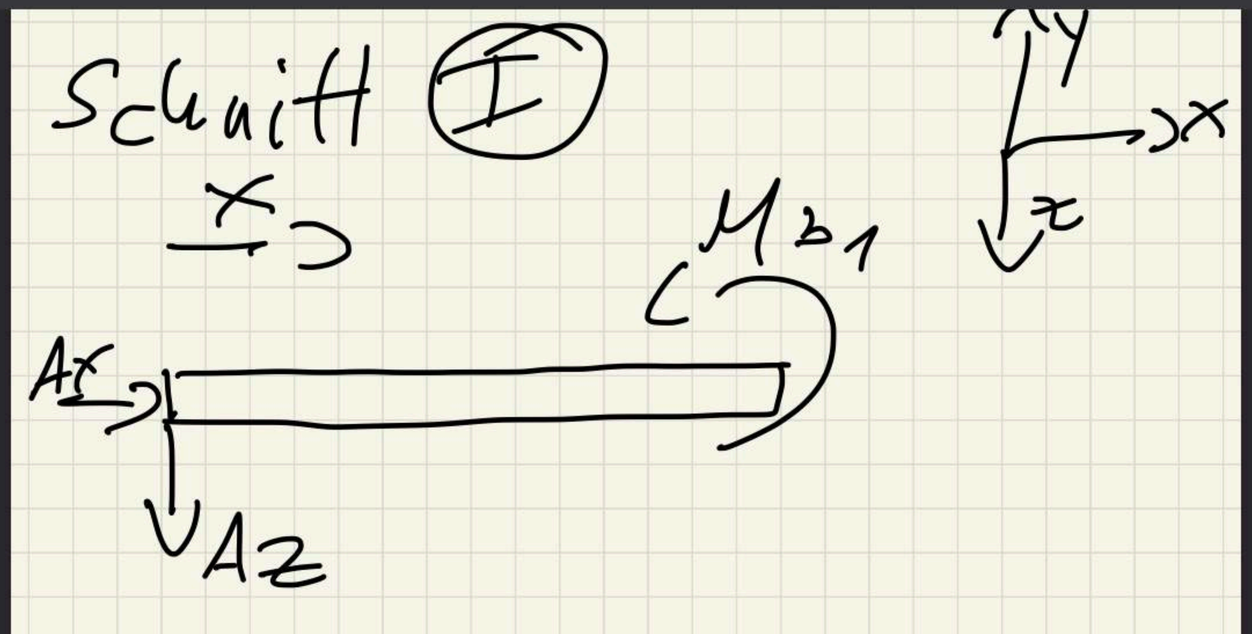


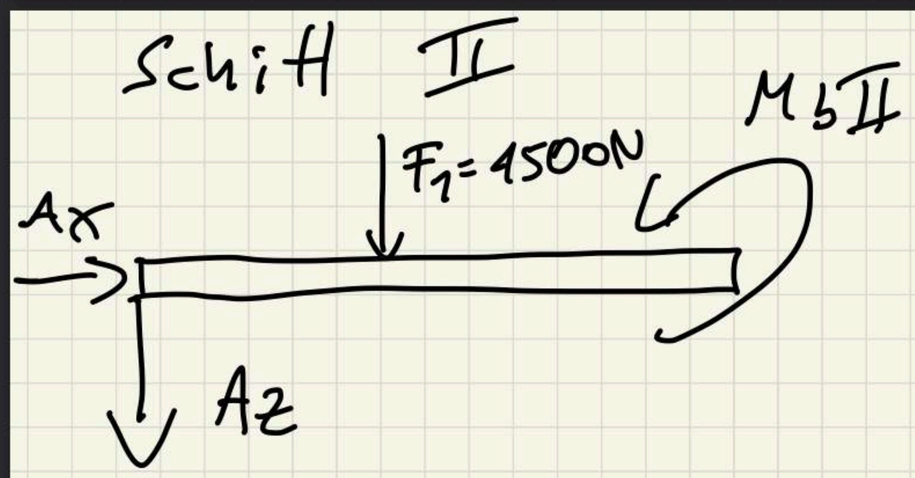
$$\sum M_y^{(1)} = 0 \qquad M_{b1} + Az \cdot x = 0$$

$$\boxed{M_{b1} = -Az \cdot x}$$

$x = 0 \quad = 0\,N$

$x = 1m \quad = 750\,Nm$

Schiff II



$1m \leq x \leq 2m$

$$\Sigma M^{II} = 0$$

$$M_{bII} + A_z x + F_1 \cdot (x - 1m) = 0$$

$$M_{bII} = -A_z \cdot x - F_1 \cdot (x - 1m)$$

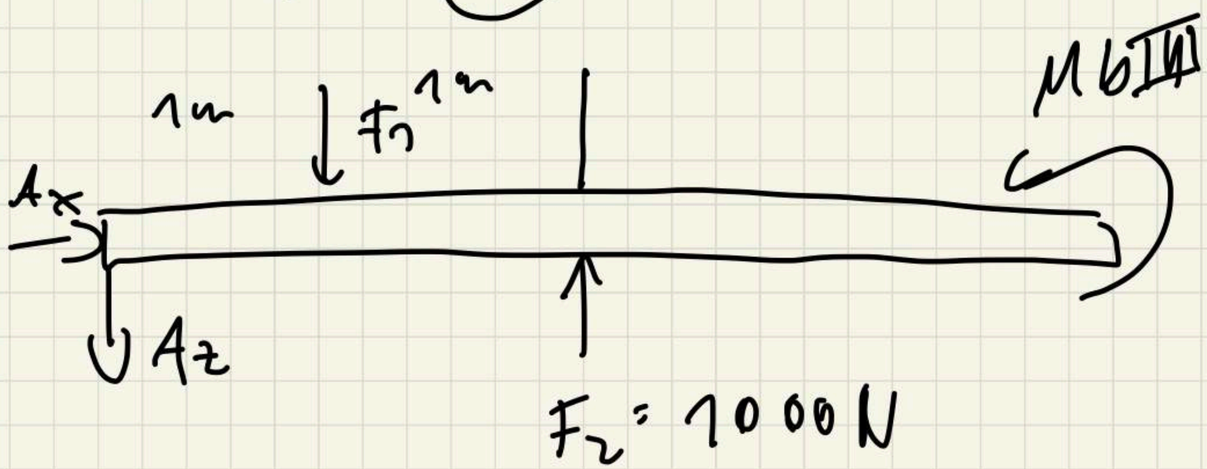
$$M_{bII} = 750N \cdot x - 1500N \cdot x + 1500\,Nm$$

$M_{bII} = -750\,Nx + 1500\,Nm$

$x = 1m \quad M_{bII} = 750\,Nm$

$x = 2m \quad M_{bII} = 0\,Nm$

Schnitt (3)



$$\sum M^{III} = 0 \quad M_{bIII} + A_2 \cdot x + F_1 \cdot (x - 1m) - F_2 \cdot (x - 2m) = 0$$

$$M_{bIII} = -A_2 \cdot x - F_1 \cdot (x - 1m) + F_2 \cdot (x - 2m) =$$

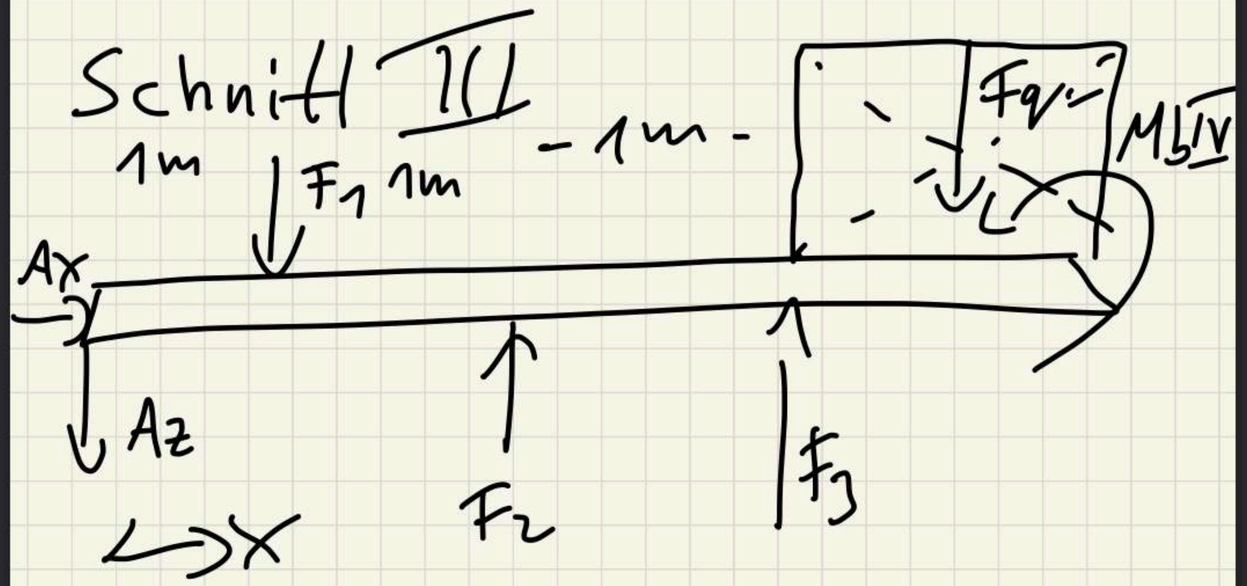
$$+750\,Nm \cdot x - 1500\,Nx + 1500\,Nm + 1000\,Nx - 2000\,Nm =$$

$$M_{bIII} = 250\,Nx - 500\,Nm$$

$x = 2\,m \qquad M_{b\,III} = 0\ Nm$

$x = 3m \qquad M_{b\,III} = 250\ Nm$

Schnitt III



$\Sigma M^{III} = 0$

$M_{b\,III} +$

$A_z \cdot x + F_1 \cdot (x - 1m) - F_2 \cdot (x - 2m)$

$- F_3 \cdot (x - 3m) + F_q \cdot \left(\frac{x - 3m}{2}\right)$

$= 0$

$$M_{b\,III} = -A_z \cdot x - F_1 \cdot (x - 1m) + F_2 \cdot (x - 2m) + F_3 \cdot (x - 3m) - F_q \cdot \left(\frac{x - 3m}{2}\right)$$

$$= 750N \cdot x - 1500N \cdot x + 1500Nm + 1000N x - 2000Nm + 500N \cdot x - 1500Nm - 2000N \cdot \left(\frac{x - 3m}{2}\right)$$

$$M_{b\,III} = 750\,N x - 3500\,Nm - 2000N \cdot \left(\frac{x - 3m}{2}\right)$$

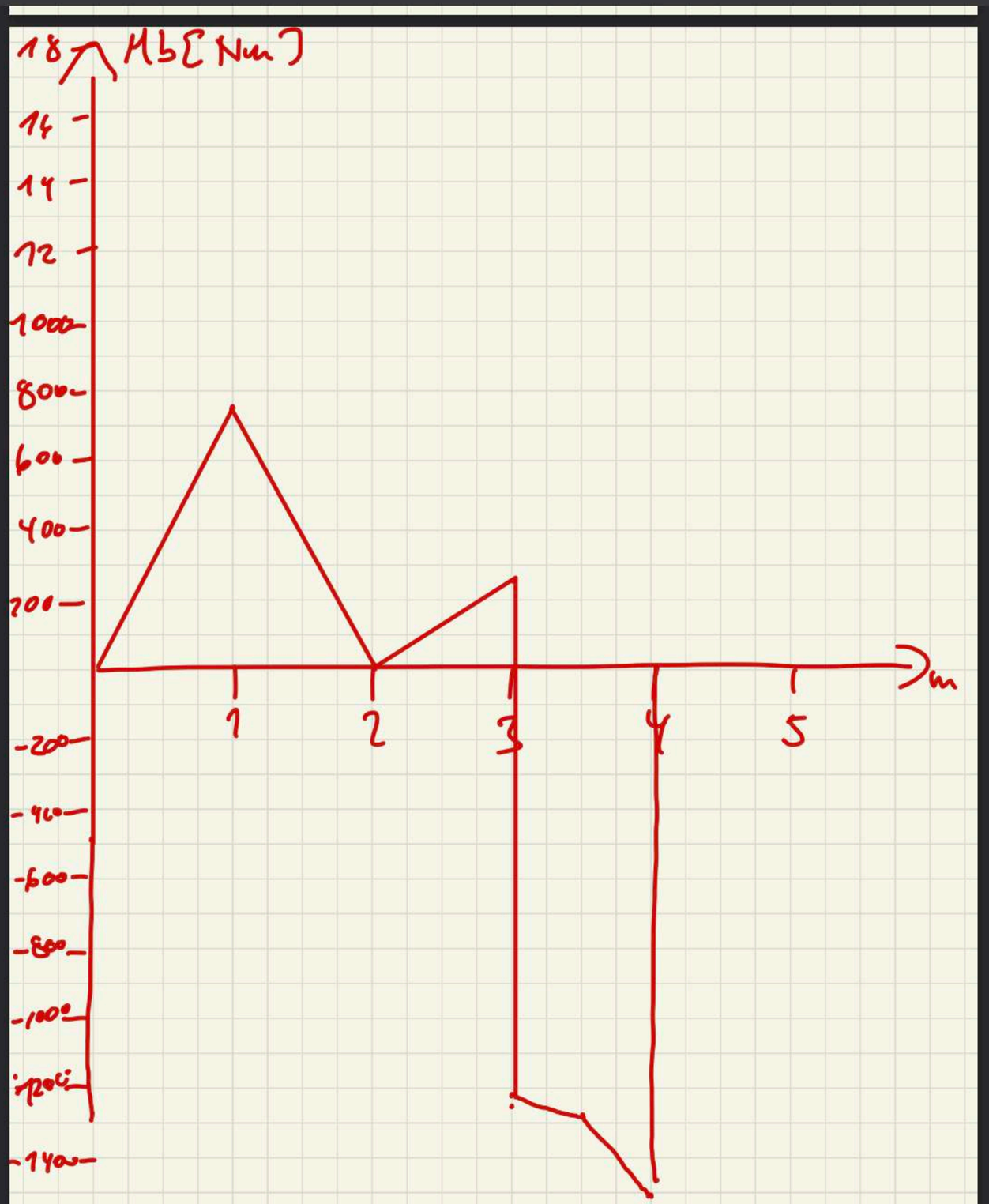
M_b III $x = 3\,m = -1250\,Nm$

$x = 4\,m = -500\,Nm$

$-2000\,N \cdot \left(\frac{1}{2}\,m\right)$

$= -1500\,Nm$

$x = 3{,}5 = -1375\,Nm$


18
Mb[Nm]
14
14
12
1000
800
600
400
200
-200
-400
-600
-800
-1000
-1200
-1400
1
2
3
4
5
m