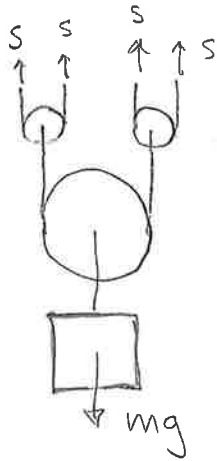


Mekanik Sp 3

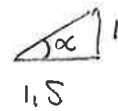
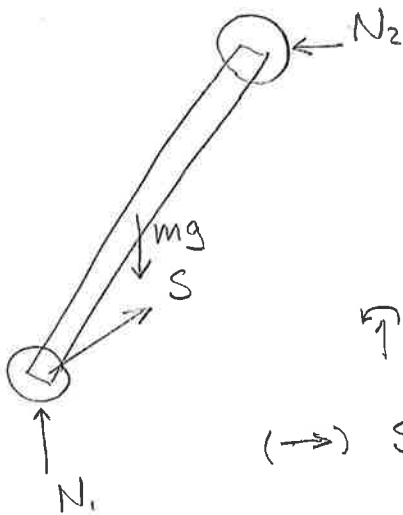
1.



$$(\uparrow) 4S - mg = 0$$

$$\Rightarrow S = \frac{1}{4} \cdot 30 \cdot g = 74 \text{ N}$$

2.



$$\alpha = \arctan \frac{1}{1.5} = 33,7^\circ$$

$$\curvearrowright N_2 \cdot 2 - mg \cdot \frac{1.5}{2} = 0 \Rightarrow \underline{N_2 = 147 \text{ N}}$$

$$(\rightarrow) S \cos 33,7^\circ - N_2 = 0 \Rightarrow \underline{S = 177 \text{ N}}$$

$$(\uparrow) N_1 + S \sin 33,7^\circ - mg = 0$$

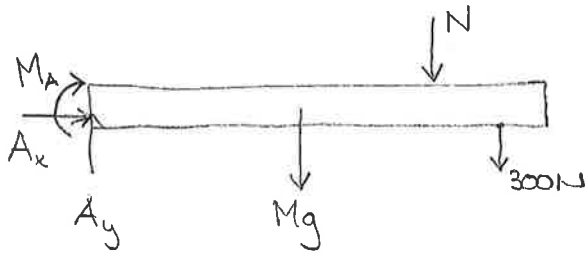
$$\Rightarrow N_1 = \frac{30}{40} \cdot g - 177 \sin 33,7^\circ = \underline{\underline{294 \text{ N}}}$$

3.



$$(\uparrow) N - S - mg = 0$$

$$\Rightarrow N = 80 \cdot g + 300 = 1085 \text{ N}$$



$$(\uparrow) A_y - 200 \cdot g - 300 - 1085 = 0$$

$$\Rightarrow \underline{A_y = 3347 \text{ N}}$$

$$(\rightarrow) \underline{A_x = 0}$$

$$\overset{\curvearrowright}{A} M_A + 200 \cdot g \cdot 1,2 + 1085 \cdot 1,8 + 300 \cdot 2,1 = 0$$

$$\Rightarrow \underline{M_A = 4937 \text{ Nm}}$$