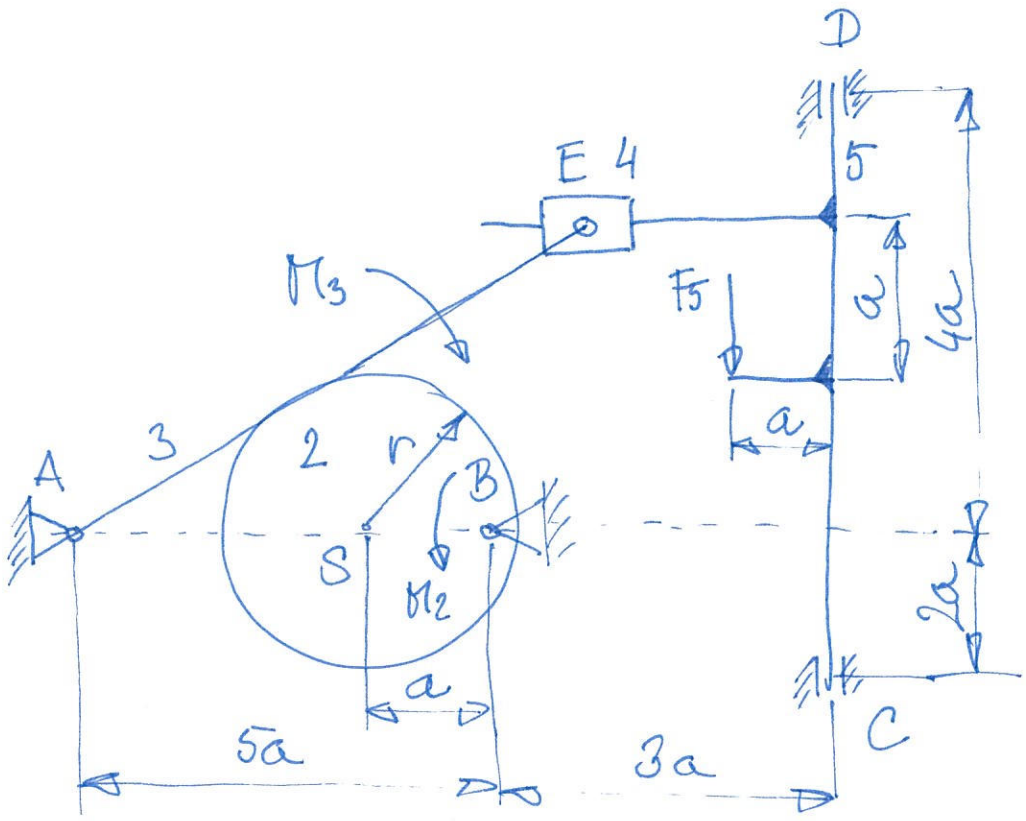
5.1/10



D: $F_5 = 300\,N$

$M_3 = 50\,Nm$

$a = 0{,}2\,m$

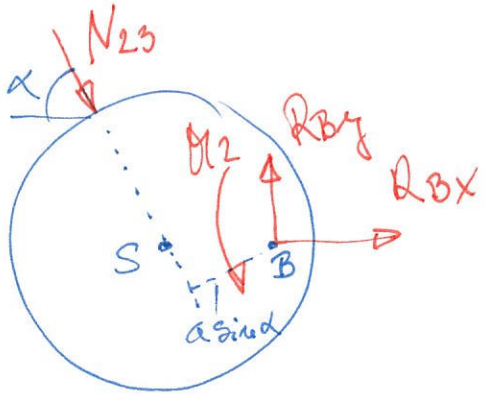
$r = 0{,}26\,m$

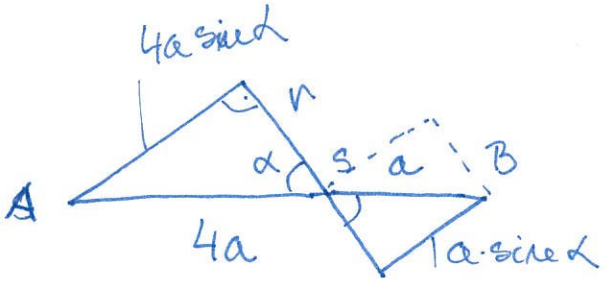
$\overline{AE} = l_3 = 1{,}28\,m$

U: M_2

reakce

(2)





$\sin\alpha =$

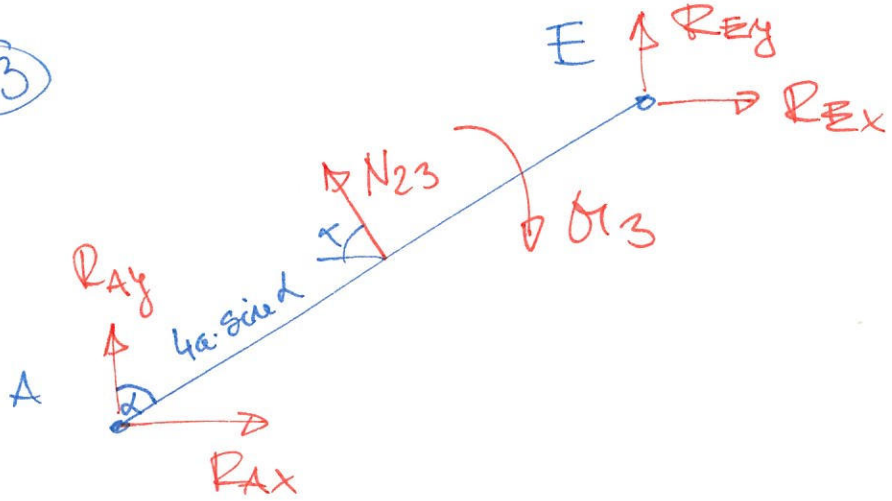
$\cos\alpha = \frac{r}{4a}$

x: $R_{Bx} + N_{23}\cos\alpha = 0$

y: $R_{By} - N_{23}\sin\alpha = 0$

M_B: $M_2 + N_{23} \cdot a \cdot \sin\alpha = 0$

(3)

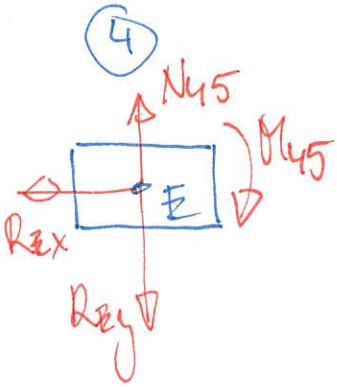


$\underline{X}$: $R_{Ax} + R_{Ex} - N_{23} \cdot \cos\alpha = 0$

$\underline{Y}$: $R_{Ay} + R_{Ey} + N_{23} \sin\alpha = 0$

$\underline{M_A}$: $N_{23} \cdot 4a \sin\alpha - M_3 + R_{Ey} \cdot l_3 \cdot \sin\alpha - R_{Ex} \cdot l_3 \cdot \cos\alpha = 0$

(4)

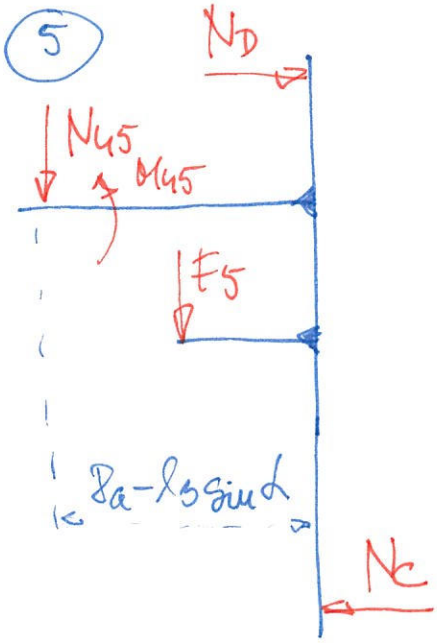


$\underline{X}$: $-R_{Ex} = 0$

$\underline{Y}$: $N_{45} - R_{Ey} = 0$

$\underline{M_E}$: $M_{45} = 0$

(5)



$\underline{X}$: $N_D - N_C = 0$

$\underline{Y}$: $-F_5 - N_{45} = 0$

$\underline{M_D}$: $N_{45} \cdot (8a - l_3 \sin\alpha) + F_5 \cdot a - N_C \cdot 6a + M_{45} = 0$

Неизвестные:

$$[R_{Ax}, R_{Ay}, R_{Bx}, R_{By}, R_C, R_D, R_{Ex}, R_{Ey}, N_{23}, N_{45}, M_{45}, M_2]$$

$\emptyset$					M_3						F_5	$-F_5 \cdot a$

=

	R_{Ax}	R_{Ay}	R_{Bx}	R_{By}	R_C	R_D	R_{Ex}	R_{Ey}	N_{23}	N_{45}	M_{45}	M_2
M_2			1									
N_{45}, M_{45}									1			1
N_{45}								1			1	$(a - l_{BC}\sin\delta)$
N_{23}	$\cos\delta$	$-\sin\delta$	$a\sin\delta$	$-\cos\delta$	$a\sin\delta$	$4a\sin\delta$						
R_{Ey}					1	$l_{BC}\sin\delta$		1				
R_{Ex}				1		$-l_{BC}\sin\delta$	-1					
R_D										1		
R_C										-1		$-4a$
R_{By}		1										
R_{Bx}	1											
R_{Ay}					1							
R_{Ax}				1								