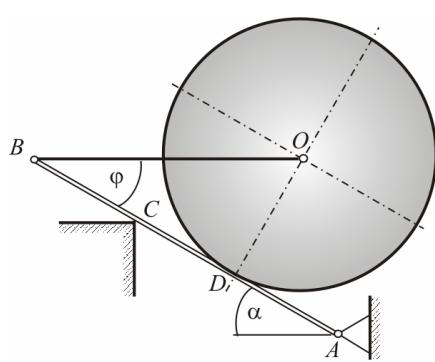
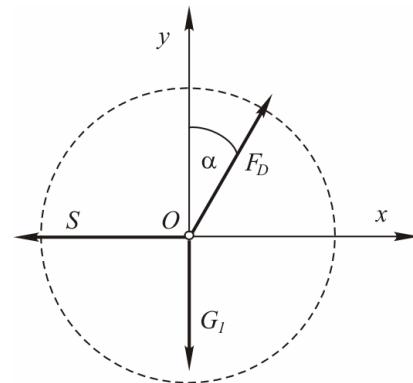




1. Zadatak

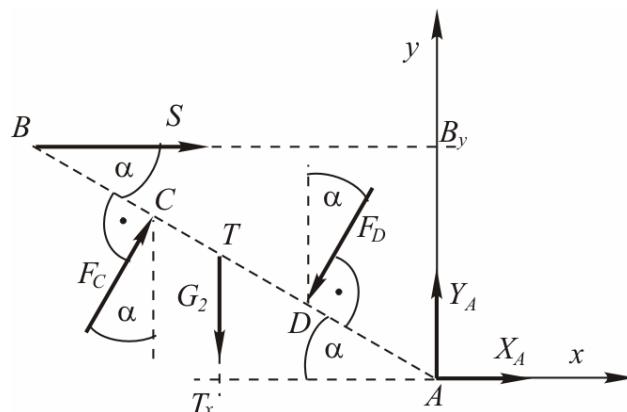


$$\begin{aligned}\overline{AD} &= \overline{DC} = \overline{CB} = a \\ \operatorname{tg} \varphi &= \frac{\overline{OD}}{\overline{BD}} = \frac{R}{2a} = \frac{\sqrt{3}}{3} \\ \varphi &= 30^\circ = \alpha\end{aligned}$$



$$\begin{aligned}\sum X_i &= 0; \quad -S + F_D \sin \alpha = 0; \\ \sum Y_i &= 0; \quad -G_1 + F_D \cos \alpha = 0; \\ \hline S &= \sqrt{3}G; \quad F_D = 2\sqrt{3}G;\end{aligned}$$

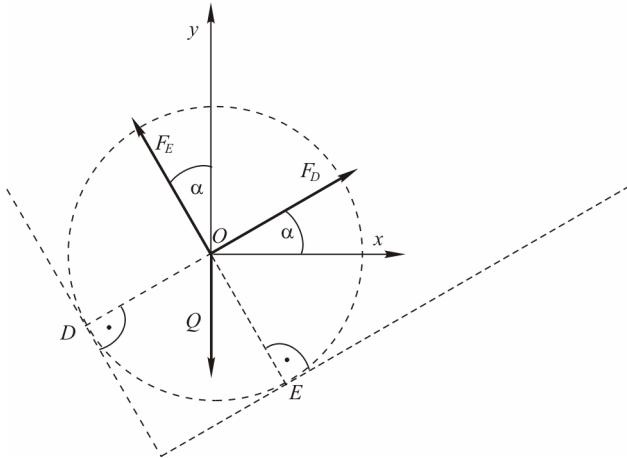
$$\begin{aligned}\overline{AT_x} &= \frac{3a}{2} \cos \alpha \\ \overline{AB_y} &= 3a \sin \alpha\end{aligned}$$



$$\begin{aligned}\sum X_i &= 0; \quad X_A - F_D \sin \alpha + F_C \sin \alpha + S = 0; \\ \sum Y_i &= 0; \quad Y_A - F_D \cos \alpha - G_2 + F_C \cos \alpha = 0; \\ \sum M_A &= 0; \quad F_D a + G_2 \overline{AT_x} - F_C 2a - S \overline{AB_y} = 0;\end{aligned}$$

$$X_A = -\frac{\sqrt{3}}{2}G; \quad Y_A = \frac{7}{2}G; \quad F_C = \sqrt{3}G;$$

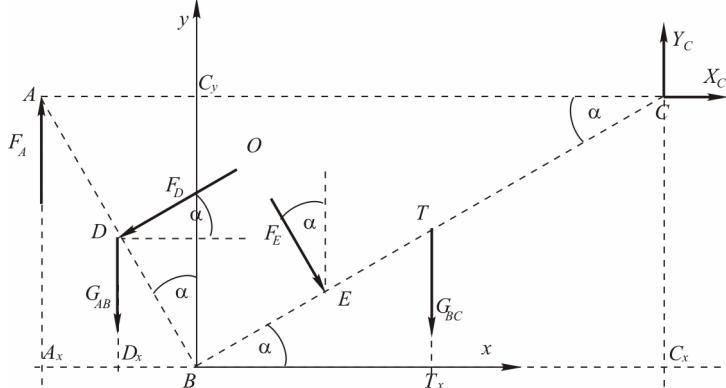
2. Zadatak



$$\begin{aligned}\sum X_i &= 0; \quad F_D \cos \alpha - F_E \sin \alpha = 0; \\ \sum Y_i &= 0; \quad F_D \sin \alpha + F_E \cos \alpha - Q = 0;\end{aligned}$$

$$F_D = \frac{7\sqrt{3}}{2} G; \quad F_E = \frac{21}{2} G;$$

$$\begin{aligned}\overline{AD} &= \overline{BD} = \frac{\overline{AD}}{2} = R; \\ \overline{BE} &= R; \\ \overline{BT} &= \overline{TC} = \frac{\overline{BC}}{2} = \sqrt{3}R; \\ \overline{BA}_x &= \overline{BA} \sin \alpha; \\ \overline{BD}_x &= \overline{BD} \sin \alpha; \\ \overline{BT}_x &= \overline{BT} \cos \alpha; \\ \overline{BC}_x &= \overline{BC} \cos \alpha; \\ \overline{BC}_y &= \overline{BC} \sin \alpha;\end{aligned}$$



$$\begin{aligned}\sum X_i &= 0; \quad X_C + F_E \sin \alpha - F_D \cos \alpha = 0; \\ \sum Y_i &= 0; \quad Y_C - G_{BC} - F_E \cos \alpha - G_{AB} + F_D \sin \alpha + F_A = 0; \\ \sum M_B &= 0; \quad -F_A \overline{BA}_x + F_D R + G_{AB} \overline{BD}_x - F_E R - G_{AB} \overline{BT}_x - X_C \overline{BC}_x + Y_C \overline{BC}_y = 0;\end{aligned}$$

$$X_C = 0; \quad Y_C = (7 + \sqrt{3})G; \quad F_A = 7\sqrt{3}G;$$