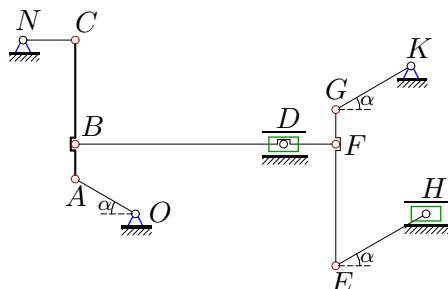


Кинематический анализ механизма (7 звеньев)

Плоский многозвездный механизм с одной степенью свободы приводится в движение кривошипом, который вращается против часовой стрелки с постоянной угловой скоростью. Найти скорости всех шарниров механизма (в см/с) и ускорения трех заданных шарниров (в м/с²). Размеры даны в см.

Кирсанов М.Н. Решебник. Теоретическая механика/Под ред. А. И. Кириллова.– М.: ФИЗМАТЛИТ, 2008. – 384 с. (с.158.)

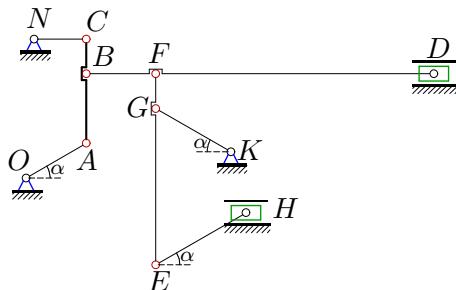
Задача 9.1.



Бредихина Наталья

$\omega_{NC} = 3 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $DB = 60$, $DF = 15$,
 $NC = 15$, $EH = 30$,
 $FE = 35$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

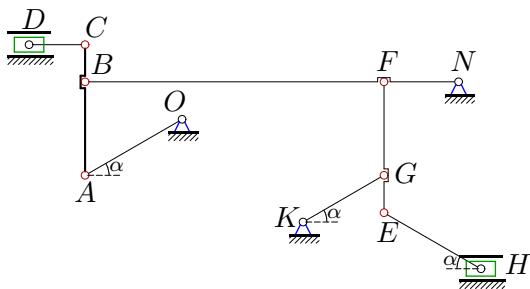
Задача 9.2.



Воробьев Петр

$\omega_{NC} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 20$, $FD = 80$,
 $NC = 15$, $EH = 30$,
 $FE = 55$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

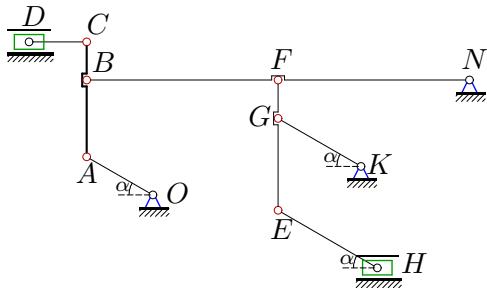
Задача 9.3.



Егупов Александр

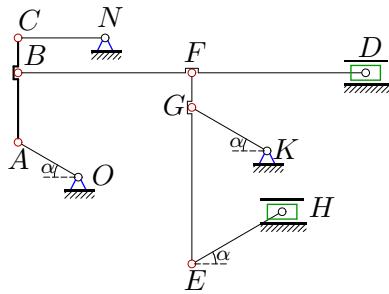
$\omega_{OA} = 3 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 15$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.4.



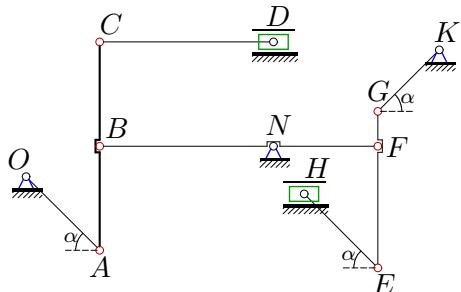
Зеленов Вадим

$\omega_{NB} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 50$, $NF = 50$,
 $CD = 15$, $EH = 30$,
 $FG = 10$, $GE = 24$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.5.

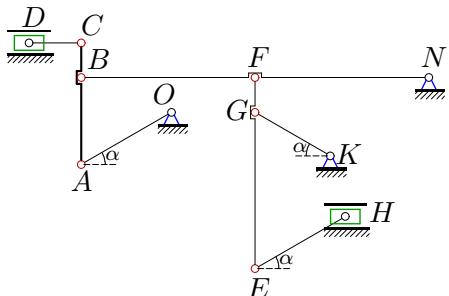
Камордин Александр

$\omega_{NC} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 50$, $FD = 50$,
 $NC = 25$, $EH = 30$,
 $FE = 55$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.6.

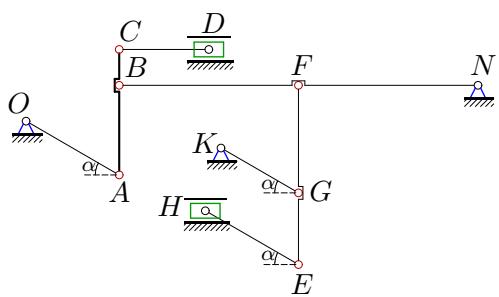
Ковырин Александр

$\omega_{BF} = 4 \text{ рад/с}$, $\alpha = 45^\circ$,
 $AB = 30$, $BC = 30$,
 $NB = 50$, $NF = 30$,
 $CD = 50$, $EH = 30$,
 $FE = 35$, $FG = 10$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.7.

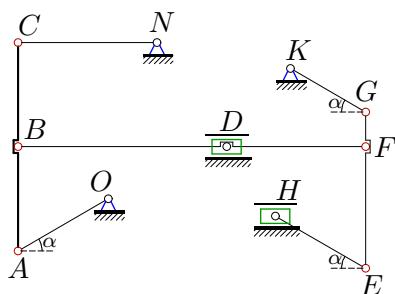
Козлов Виктор

$\omega_{OA} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 50$, $NF = 50$,
 $CD = 15$, $EH = 30$,
 $FG = 10$, $GE = 45$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.8.

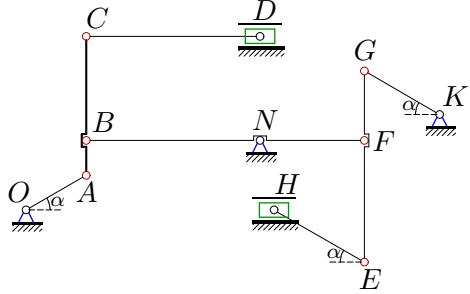
Красов Алексей

$\omega_{NB} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 50$, $NF = 50$,
 $CD = 25$, $EH = 30$,
 $FG = 30$, $GE = 20$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.9.

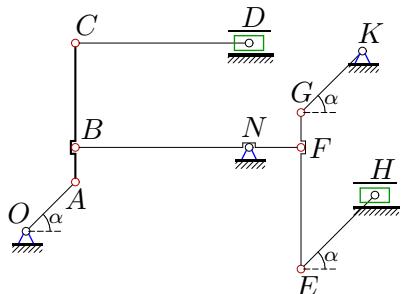
Латрыгин Андрей

$\omega_{NC} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $DB = 60$, $DF = 40$,
 $NC = 40$, $EH = 30$,
 $FE = 35$, $FG = 10$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.10.

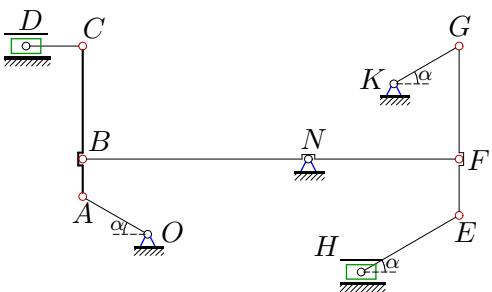
Леванюшкин Евгений

$\omega_{BF} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 50$, $NF = 30$,
 $CD = 50$, $EH = 30$,
 $FE = 35$, $FG = 20$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.11.

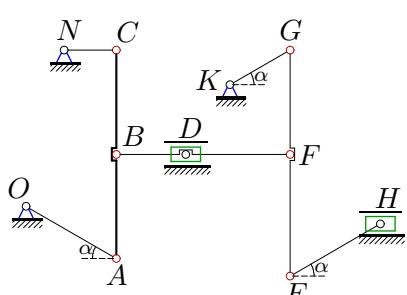
Мальцев Александр

$\omega_{BF} = 1 \text{ рад/с}$, $\alpha = 45^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 50$, $NF = 15$,
 $CD = 50$, $EH = 30$,
 $FE = 35$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.12.

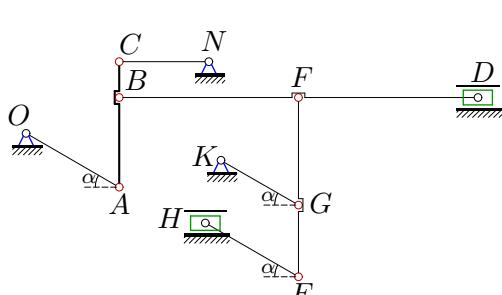
Молчанов Игорь

$\omega_{BF} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 60$, $NF = 40$,
 $CD = 15$, $EH = 30$,
 $FE = 15$, $FG = 30$,
 $OA = 20$, $KG = 20$.
 a_A , a_B , a_C ?

Задача 9.13.

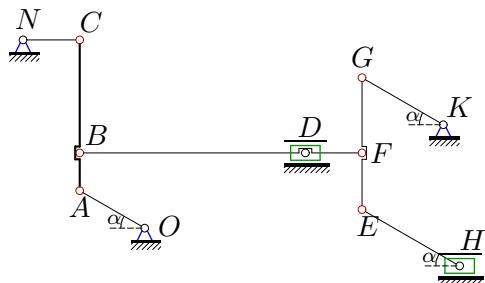
Новиков Дмитрий

$\omega_{NC} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $DB = 20$, $DF = 30$,
 $NC = 15$, $EH = 30$,
 $FE = 35$, $FG = 30$,
 $OA = 30$, $KG = 20$.
 a_A , a_B , a_C ?

Задача 9.14.

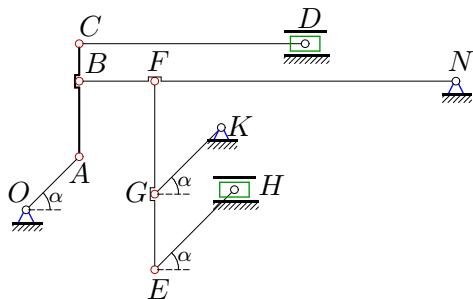
Полум Юрий

$\omega_{NC} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 50$, $FD = 50$,
 $NC = 25$, $EH = 30$,
 $FE = 50$, $FG = 30$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.15.

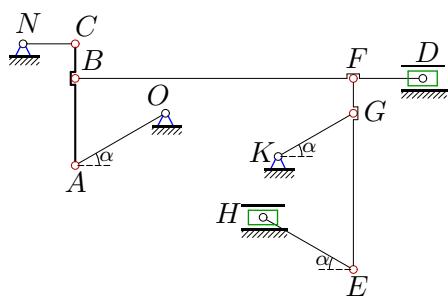
Пуцелев Артем

$\omega_{NC} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $DB = 60$, $DF = 15$,
 $NC = 15$, $EH = 30$,
 $FE = 15$, $FG = 20$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.16.

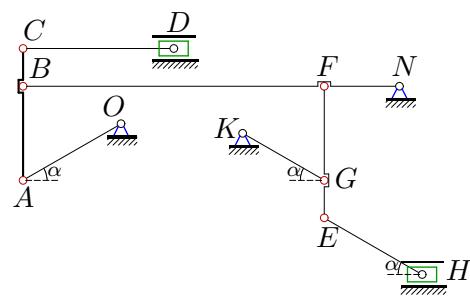
Розанов Денис

$\omega_{KG} = 2 \text{ рад/с}$, $\alpha = 45^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 20$, $NF = 80$,
 $CD = 60$, $EH = 30$,
 $FG = 30$, $GE = 20$,
 $OA = 20$, $KG = 25$.
 a_G , a_F , a_E ?

Задача 9.17.

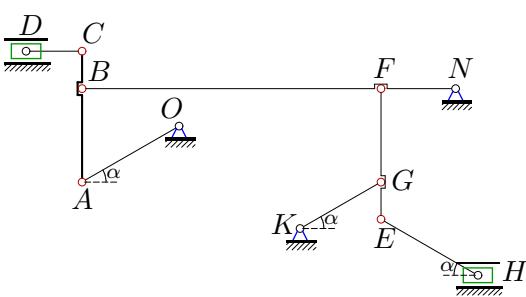
Светлов Вадим

$\omega_{OA} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 80$, $FD = 20$,
 $NC = 15$, $EH = 30$,
 $FE = 55$, $FG = 10$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.18.

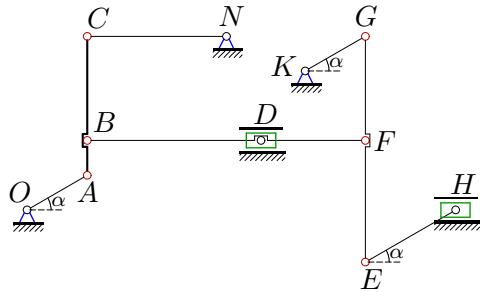
Суцков Алексей

$\omega_{KG} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 40$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 30$, $KG = 25$.
 a_G , a_F , a_E ?

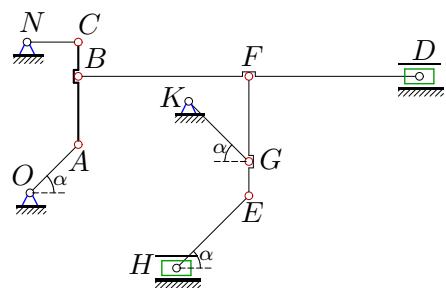
Задача 9.19.

Хасянишина Альбина

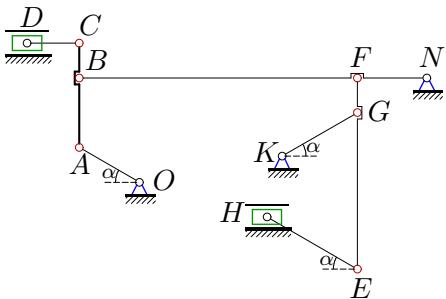
$\omega_{OA} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 15$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.20.*Шапошников Станислав*

$\omega_{OA} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $DB = 50$, $DF = 30$,
 $NC = 40$, $EH = 30$,
 $FE = 35$, $FG = 30$,
 $OA = 20$, $KG = 20$.
 a_A , a_B , a_C ?

Задача 9.21.*Шимарова Светлана*

$\omega_{NC} = 1 \text{ рад/с}$, $\alpha = 45^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 50$, $FD = 50$,
 $NC = 15$, $EH = 30$,
 $FE = 35$, $FG = 25$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?

Задача 9.22.*Шукров Сергей*

$\omega_{NB} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 15$, $EH = 30$,
 $FG = 10$, $GE = 45$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C ?