

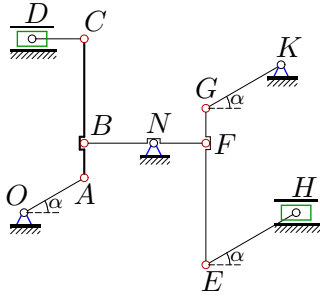
Кинематический анализ механизма (7 звеньев)

Плоский многозвенный 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.)

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|----------------------------|--|--|
| <p>Задача К9.1.</p> | | <p style="text-align: right;"><i>Багаев Евгений</i></p> <p> $\omega_{NC} = 1 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 30, BC = 30,$ $DB = 60, DF = 40,$ $NC = 40, EH = 30,$ $FE = 15, FG = 30,$ $OA = 30, KG = 20.$ $a_A, a_B, a_C - ?$ </p> |
| <p>Задача К9.2.</p> | | <p style="text-align: right;"><i>Близнюков Егор</i></p> <p> $\omega_{BF} = 2 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 30, BC = 30,$ $NB = 50, NF = 30,$ $CD = 50, EH = 30,$ $FE = 15, FG = 20,$ $OA = 30, KG = 25.$ $a_A, a_B, a_C - ?$ </p> |
| <p>Задача К9.3.</p> | | <p style="text-align: right;"><i>Дударев Евгений</i></p> <p> $\omega_{NB} = 2 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 20, BC = 10,$ $BF = 50, NF = 50,$ $CD = 25, EH = 30,$ $FG = 25, GE = 10,$ $OA = 20, KG = 25.$ $a_A, a_B, a_C - ?$ </p> |
| <p>Задача К9.4.</p> | | <p style="text-align: right;"><i>Дудка Иван</i></p> <p> $\omega_{KG} = 1 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 10, BC = 30,$ $NB = 60, NF = 30,$ $CD = 15, EH = 30,$ $FE = 35, FG = 30,$ $OA = 20, KG = 20.$ $a_G, a_F, a_E - ?$ </p> |
| <p>Задача К9.5.</p> | | <p style="text-align: right;"><i>Исаев Юрий</i></p> <p> $\omega_{NB} = 1 \text{ рад/с}, \alpha = 45^\circ,$ $AB = 25, BC = 10,$ $BF = 50, NF = 50,$ $CD = 25, EH = 30,$ $FG = 25, GE = 10,$ $OA = 30, KG = 25.$ $a_A, a_B, a_C - ?$ </p> |

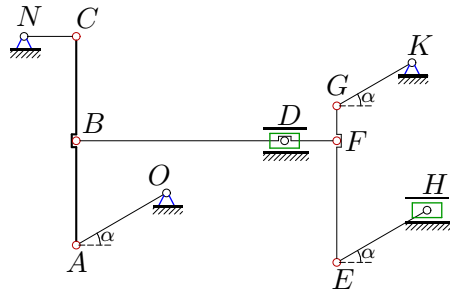
Задача K9.6.



Кудрявцев Павел

$\omega_{OA} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 20$, $NF = 15$,
 $CD = 15$, $EH = 30$,
 $FE = 35$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

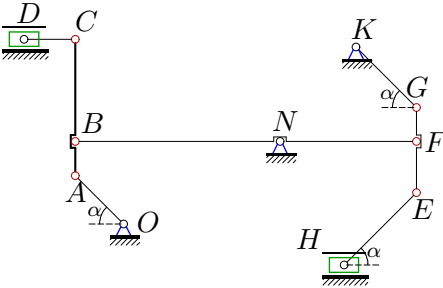
Задача K9.7.



Кузин Максим

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

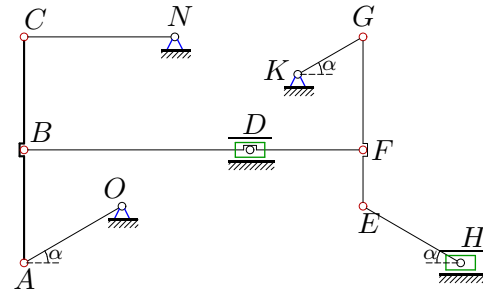
Задача K9.8.



Леценко Максим

$\omega_{OA} = 1 \text{ рад/с}$, $\alpha = 45^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 60$, $NF = 40$,
 $CD = 15$, $EH = 30$,
 $FE = 15$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

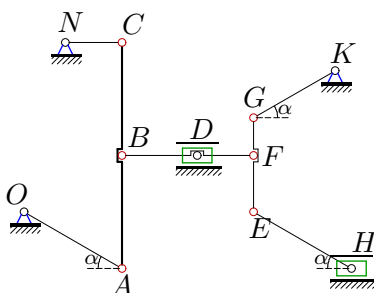
Задача K9.9.



Лутохин Марк

$\omega_{OA} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $DB = 60$, $DF = 30$,
 $NC = 40$, $EH = 30$,
 $FE = 15$, $FG = 30$,
 $OA = 30$, $KG = 20$.
 a_A , a_B , a_C - ?

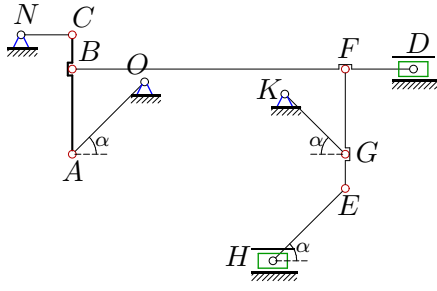
Задача K9.10.



Лысов Сергей

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

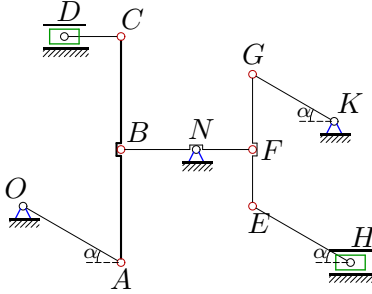
Задача K9.11.



Макаров Дмитрий

$\omega_{OA} = 2 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 25, BC = 10,$
 $BF = 80, FD = 20,$
 $NC = 15, EH = 30,$
 $FE = 35, FG = 25,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

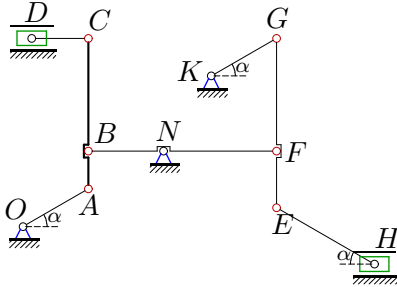
Задача K9.12.



Миляев Роман

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

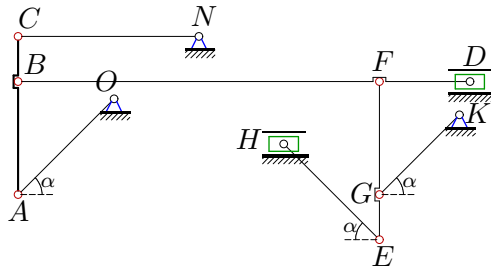
Задача K9.13.



Однорог Дмитрий

$\omega_{KG} = 3 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 10, BC = 30,$
 $NB = 20, NF = 30,$
 $CD = 15, EH = 30,$
 $FE = 15, FG = 30,$
 $OA = 20, KG = 20.$
 $a_G, a_F, a_E - ?$

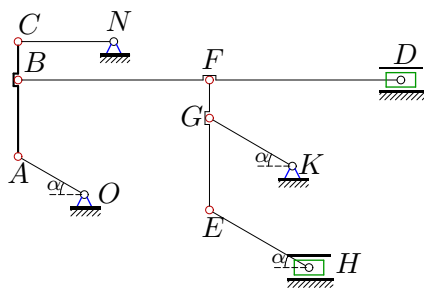
Задача K9.14.



Петров Михаил

$\omega_{NC} = 2 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 25, BC = 10,$
 $BF = 80, FD = 20,$
 $NC = 40, EH = 30,$
 $FE = 35, FG = 25,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

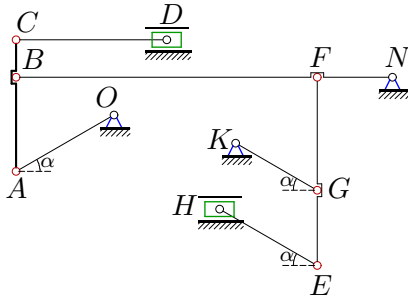
Задача K9.15.



Потемкин Дмитрий

$\omega_{NC} = 2 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 20, BC = 10,$
 $BF = 50, FD = 50,$
 $NC = 25, EH = 30,$
 $FE = 34, FG = 10,$
 $OA = 20, KG = 25.$
 $a_A, a_B, a_C - ?$

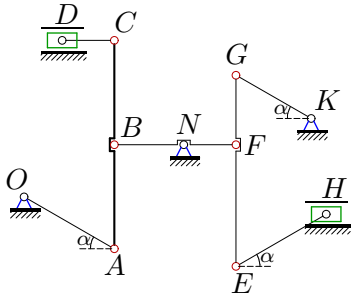
Задача K9.16.



Пучков Антон

$\omega_{OA} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 40$, $EH = 30$,
 $FG = 30$, $GE = 20$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C - ?

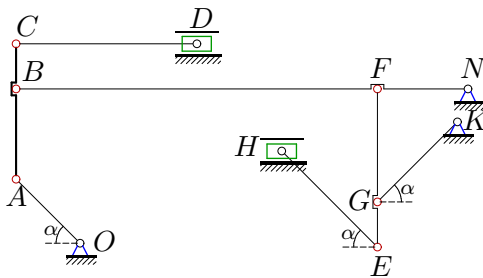
Задача K9.17.



Пучков Павел

$\omega_{KG} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $NB = 20$, $NF = 15$,
 $CD = 15$, $EH = 30$,
 $FE = 35$, $FG = 20$,
 $OA = 30$, $KG = 25$.
 a_G , a_F , a_E - ?

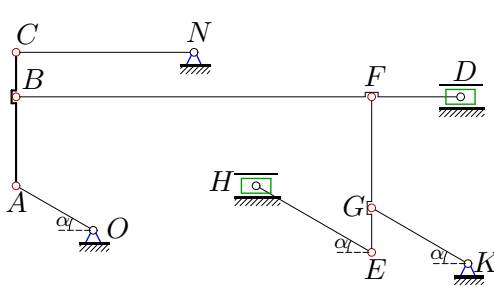
Задача K9.18.



Самыгина Елизавета

$\omega_{NB} = 4 \text{ рад/с}$, $\alpha = 45^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 40$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

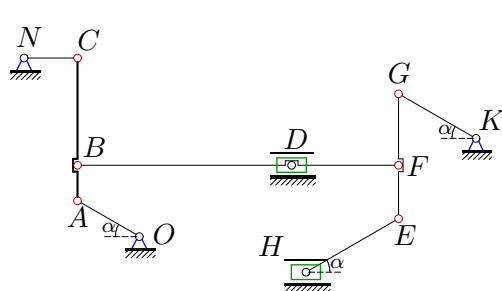
Задача K9.19.



Теуважук Антон

$\omega_{NC} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 80$, $FD = 20$,
 $NC = 40$, $EH = 30$,
 $FE = 35$, $FG = 25$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

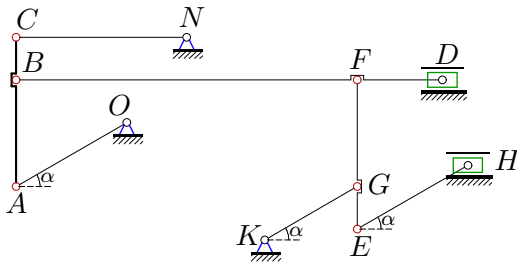
Задача K9.20.



Туманов Николай

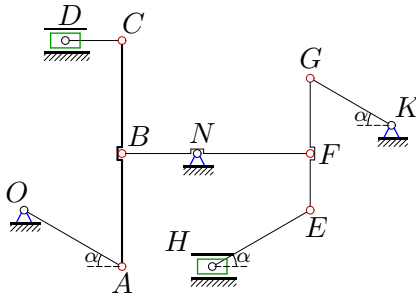
$\omega_{OA} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $DB = 60$, $DF = 30$,
 $NC = 15$, $EH = 30$,
 $FE = 15$, $FG = 20$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача K9.21.



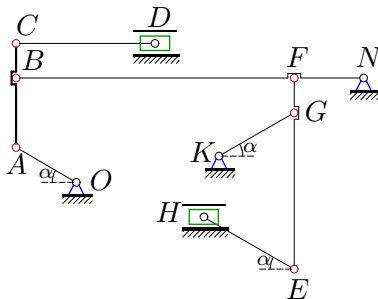
Улановский Олег
 $\omega_{NC} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 80$, $FD = 20$,
 $NC = 40$, $EH = 30$,
 $FE = 35$, $FG = 25$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача K9.22.



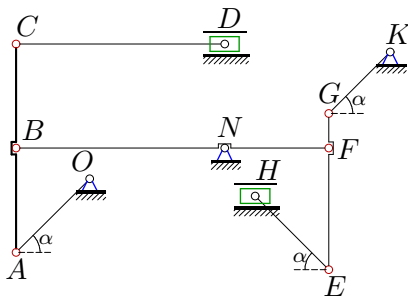
Хуан Хуань
 $\omega_{BF} = 3 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $NB = 20$, $NF = 30$,
 $CD = 15$, $EH = 30$,
 $FE = 15$, $FG = 20$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача K9.23.



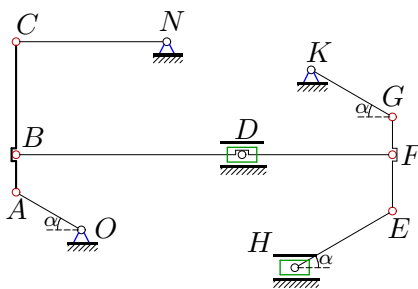
Чамлай Кирилл
 $\omega_{NB} = 3 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 40$, $EH = 30$,
 $FG = 10$, $GE = 45$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача K9.24.



Ярцев Константин
 $\omega_{BF} = 1 \text{ рад/с}$, $\alpha = 45^\circ$,
 $AB = 30$, $BC = 30$,
 $NB = 60$, $NF = 30$,
 $CD = 60$, $EH = 30$,
 $FE = 35$, $FG = 10$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача K9.25.



Ольховский Иван
 $\omega_{NC} = 2 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $DB = 60$, $DF = 40$,
 $NC = 40$, $EH = 30$,
 $FE = 15$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?