

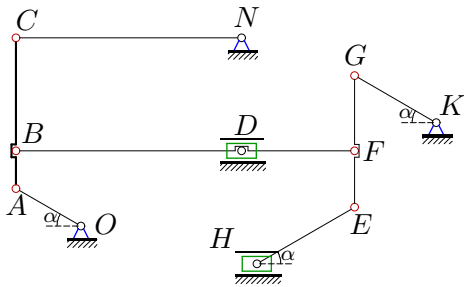
Кинематический анализ механизма (7 звеньев)

Плоский многосвязный 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/с). Размеры даны в см.

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

<p>Задача 9.1.</p>		<p style="text-align: right;"><i>Балашов Дмитрий</i></p> <p> $\omega_{BF} = 2 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 10, BC = 30,$ $NB = 60, NF = 30,$ $CD = 60, EH = 30,$ $FE = 15, FG = 20,$ $OA = 20, KG = 25.$ $a_A, a_B, a_C - ?$ </p>
<p>Задача 9.2.</p>		<p style="text-align: right;"><i>Бежашвили Александр</i></p> <p> $\omega_{OA} = 3 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 30, BC = 30,$ $NB = 60, NF = 30,$ $CD = 15, EH = 30,$ $FE = 15, FG = 10,$ $OA = 30, KG = 25.$ $a_A, a_B, a_C - ?$ </p>
<p>Задача 9.3.</p>		<p style="text-align: right;"><i>Довгалюк Дмитрий</i></p> <p> $\omega_{OA} = 1 \text{ рад/с}, \alpha = 45^\circ,$ $AB = 20, BC = 10,$ $BF = 50, FD = 50,$ $NC = 25, EH = 30,$ $FE = 35, FG = 25,$ $OA = 20, KG = 25.$ $a_A, a_B, a_C - ?$ </p>
<p>Задача 9.4.</p>		<p style="text-align: right;"><i>Исмаилов Дмитрий</i></p> <p> $\omega_{NC} = 2 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 25, BC = 10,$ $BF = 80, FD = 20,$ $NC = 40, EH = 30,$ $FE = 35, FG = 25,$ $OA = 30, KG = 25.$ $a_A, a_B, a_C - ?$ </p>
<p>Задача 9.5.</p>		<p style="text-align: right;"><i>Карлик Дмитрий</i></p> <p> $\omega_{KG} = 2 \text{ рад/с}, \alpha = 30^\circ,$ $AB = 10, BC = 30,$ $NB = 50, NF = 30,$ $CD = 40, EH = 30,$ $FE = 35, FG = 30,$ $OA = 20, KG = 20.$ $a_G, a_F, a_E - ?$ </p>

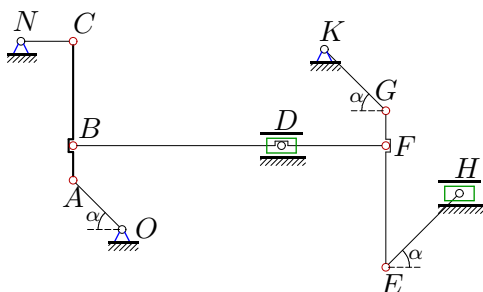
Задача 9.6.



Крюкова Валерия

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

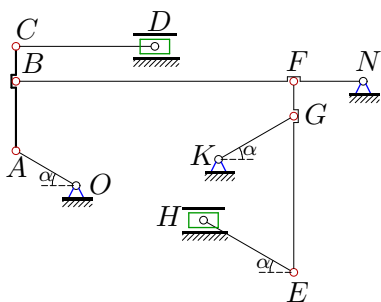
Задача 9.7.



Курьиндин Илья

$\omega_{NC} = 1 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 10, BC = 30,$
 $DB = 60, DF = 30,$
 $NC = 15, EH = 30,$
 $FE = 35, FG = 10,$
 $OA = 20, KG = 25.$
 $a_A, a_B, a_C - ?$

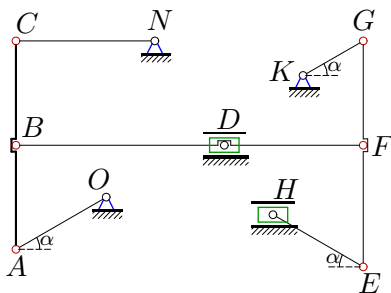
Задача 9.8.



Лапин Александр

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

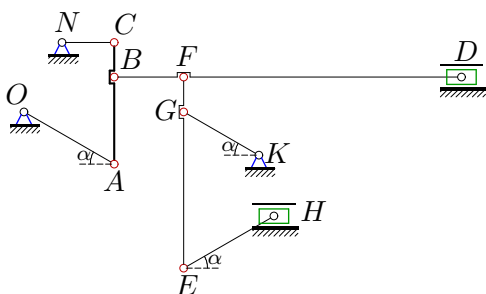
Задача 9.9.



Леонова Анна

$\omega_{OA} = 4 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 30, BC = 30,$
 $DB = 60, DF = 40,$
 $NC = 40, EH = 30,$
 $FE = 35, FG = 30,$
 $OA = 30, KG = 20.$
 $a_A, a_B, a_C - ?$

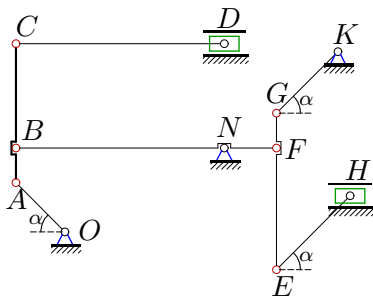
Задача 9.10.



Мазаев Илья

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

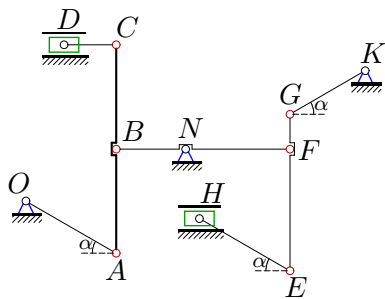
Задача 9.11.



Мазанова Анна

$\omega_{OA} = 2 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 10, BC = 30,$
 $NB = 60, NF = 15,$
 $CD = 60, EH = 30,$
 $FE = 35, FG = 10,$
 $OA = 20, KG = 25.$
 $a_A, a_B, a_C - ?$

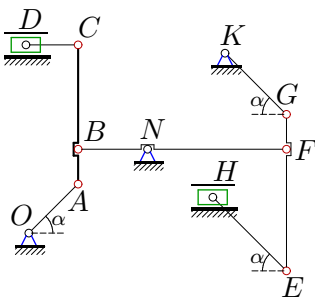
Задача 9.12.



Макаров Александр

$\omega_{BF} = 3 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 30, BC = 30,$
 $NB = 20, NF = 30,$
 $CD = 15, EH = 30,$
 $FE = 35, FG = 10,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

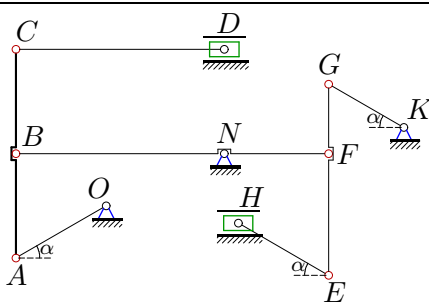
Задача 9.13.



Орлов Алексей

$\omega_{BF} = 1 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 10, BC = 30,$
 $NB = 20, NF = 40,$
 $CD = 15, EH = 30,$
 $FE = 35, FG = 10,$
 $OA = 20, KG = 25.$
 $a_A, a_B, a_C - ?$

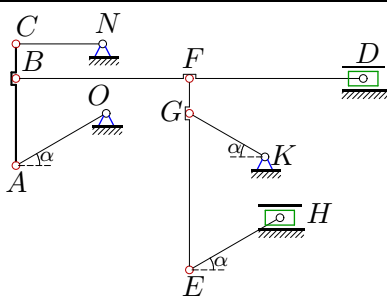
Задача 9.14.



Петраков Павел

$\omega_{BF} = 2 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 30, BC = 30,$
 $NB = 60, NF = 30,$
 $CD = 60, EH = 30,$
 $FE = 35, FG = 20,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

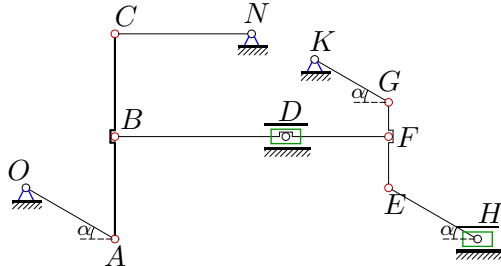
Задача 9.15.



Потемкин Михаил

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

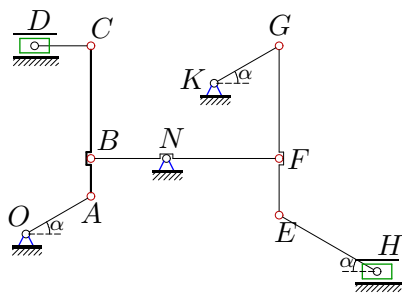
Задача 9.16.



Прохоренков Юрий

$\omega_{OA} = 4 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 30, BC = 30,$
 $DB = 50, DF = 30,$
 $NC = 40, EH = 30,$
 $FE = 15, FG = 10,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

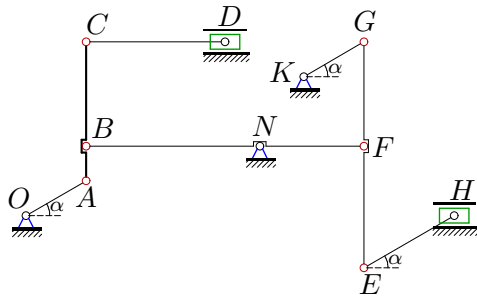
Задача 9.17.



Рубан Сергей

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

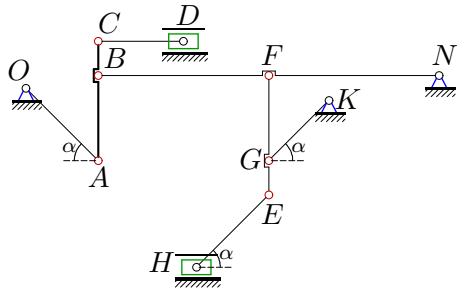
Задача 9.18.



Сабирзянов Дамир

$\omega_{KG} = 3$ рад/с, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 50$, $NF = 30$,
 $CD = 40$, $EH = 30$,
 $FE = 35$, $FG = 30$,
 $OA = 20$, $KG = 20$.
 $a_G, a_F, a_E - ?$

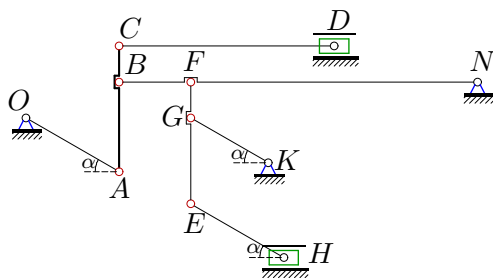
Задача 9.19.



Сафина Эльмира

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

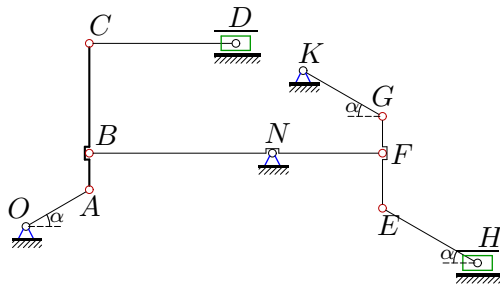
Задача 9.20.



Салаев Михаил

$\omega_{KG} = 4$ рад/с, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 20$, $NF = 80$,
 $CD = 60$, $EH = 30$,
 $FG = 10$, $GE = 24$,
 $OA = 30$, $KG = 25$.
 $a_G, a_F, a_E - ?$

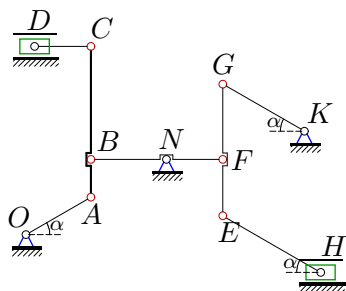
Задача 9.21.



Староверкин Игорь

$\omega_{OA} = 3$ рад/с, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 50$, $NF = 30$,
 $CD = 40$, $EH = 30$,
 $FE = 15$, $FG = 10$,
 $OA = 20$, $KG = 25$.
 $a_A, a_B, a_C - ?$

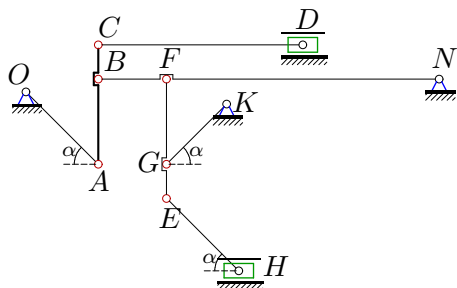
Задача 9.22.



Тулушев Алексей

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

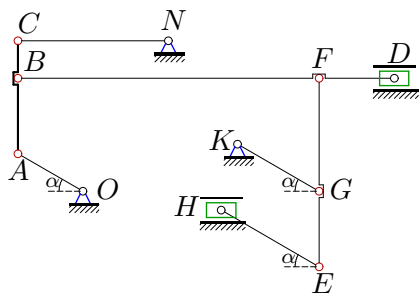
Задача 9.23.



Чех Мария

$\omega_{KG} = 3$ рад/с, $\alpha = 45^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 20$, $NF = 80$,
 $CD = 60$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 30$, $KG = 25$.
 $a_G, a_F, a_E - ?$

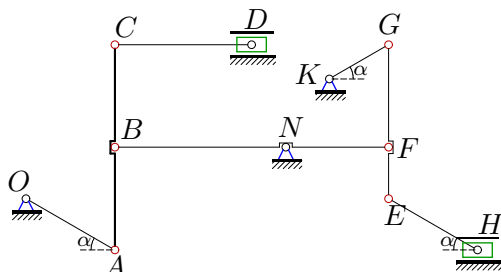
Задача 9.24.



Шутов Алексей

$\omega_{OA} = 4$ рад/с, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 80$, $FD = 20$,
 $NC = 40$, $EH = 30$,
 $FE = 50$, $FG = 30$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

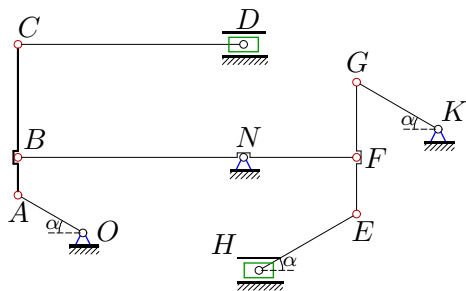
Задача 9.25.



Цогт Тамир

$\omega_{KG} = 4$ рад/с, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $NB = 50$, $NF = 30$,
 $CD = 40$, $EH = 30$,
 $FE = 15$, $FG = 30$,
 $OA = 30$, $KG = 20$.
 a_G , a_F , a_E - ?

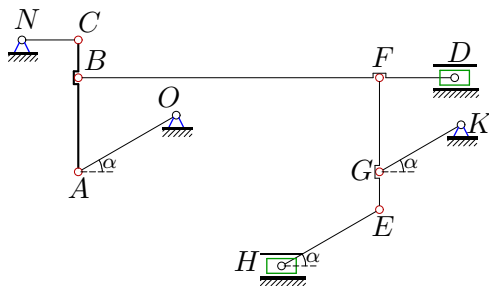
Задача 9.26.



Цогтбаяр Халиунаа

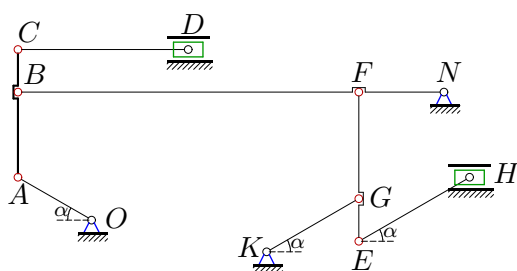
$\omega_{OA} = 1$ рад/с, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $NB = 60$, $NF = 30$,
 $CD = 60$, $EH = 30$,
 $FE = 15$, $FG = 20$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача 9.27.



$\omega_{NC} = 1$ рад/с, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 80$, $FD = 20$,
 $NC = 15$, $EH = 30$,
 $FE = 35$, $FG = 25$,
 $OA = 30$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача 9.28.



Циковкин Геннадий

$\omega_{KG} = 2$ рад/с, $\alpha = 30^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 80$, $NF = 20$,
 $CD = 40$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 20$, $KG = 25$.
 a_G , a_F , a_E - ?