

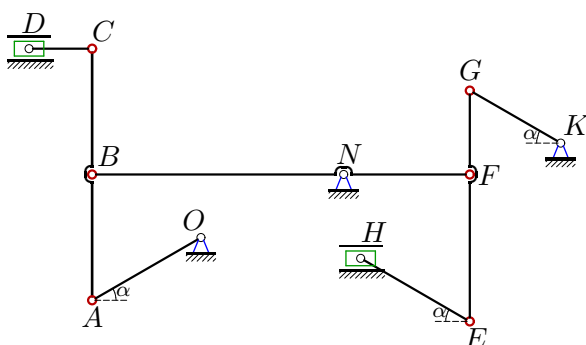
Кинематический анализ механизма (7 звеньев)

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 сантиметрах.

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

Задача 9.1.

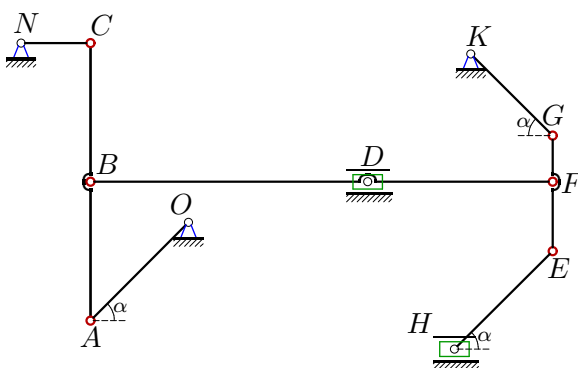
Андреев Александр Васильевич



$\omega_{OA} = 4 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 30, BC = 30,$
 $NB = 60, NF = 30,$
 $CD = 15, EH = 30,$
 $FE = 35, FG = 20,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

Задача 9.2.

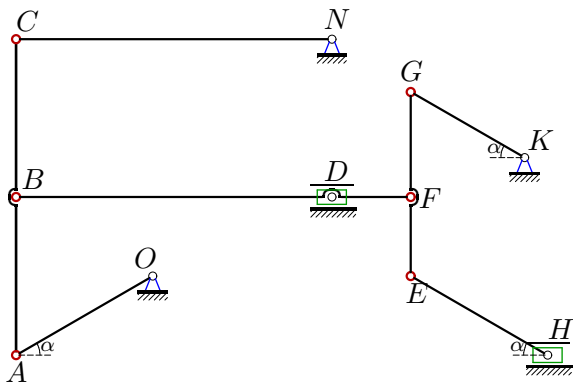
Бурдюгов Пётр Викторович



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

Задача 9.3.

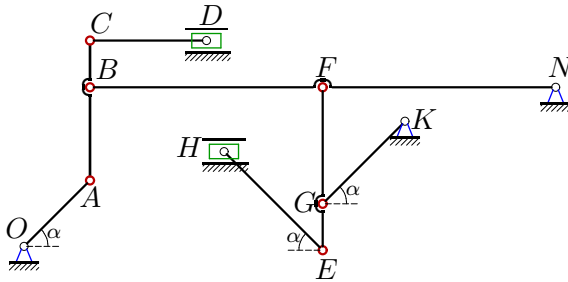
Зиначев Александр Сергеевич



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

Задача 9.4.

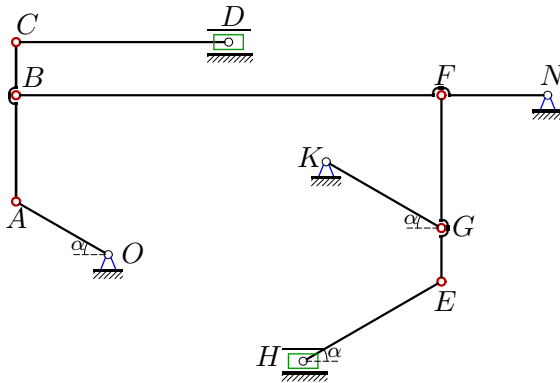
Калашников Александр Владимирович



$\omega_{OA} = 4$ рад/с, $\alpha = 45^\circ$,
 $AB = 20$, $BC = 10$,
 $BF = 50$, $NF = 50$,
 $CD = 25$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 20$, $KG = 25$.
 a_A , a_B , a_C - ?

Задача 9.5.

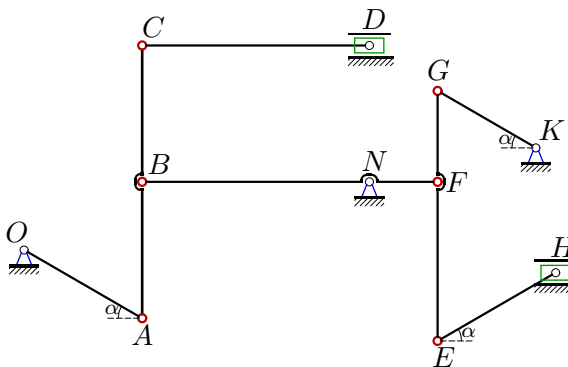
Марченко Тимофей Алексеевич



$\omega_{NB} = 2$ 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_A , a_B , a_C - ?

Задача 9.6.

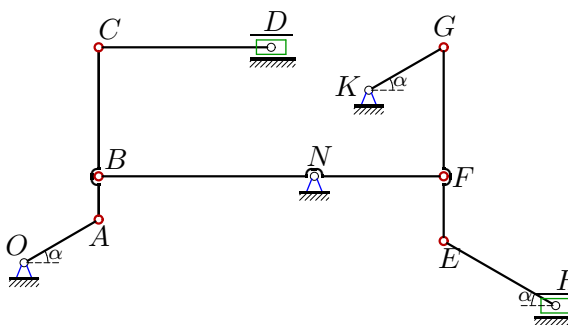
Махнев Андрей Дмитриевич



$\omega_{KG} = 4$ рад/с, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $NB = 50$, $NF = 15$,
 $CD = 50$, $EH = 30$,
 $FE = 35$, $FG = 20$,
 $OA = 30$, $KG = 25$.
 a_G , a_F , a_E - ?

Задача 9.7.

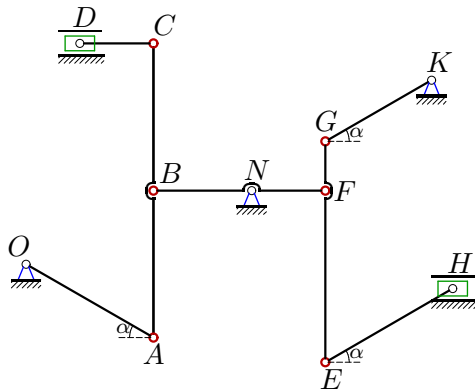
Мирзоев Владимир Мирзобекович



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

Задача 9.8.

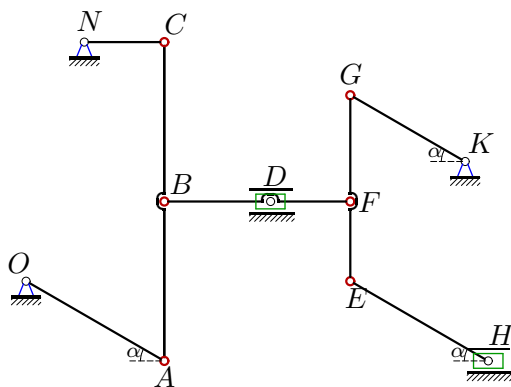
Одинцов Никита Игоревич



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

Задача 9.9.

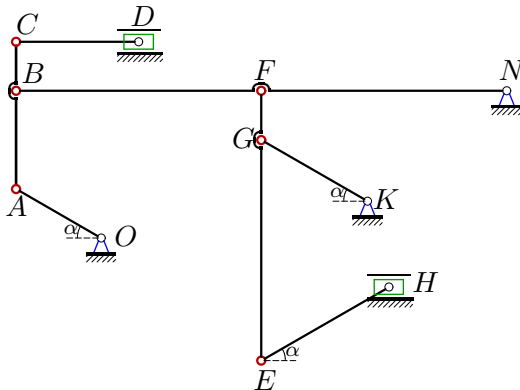
Ойкин Дмитрий Олегович



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

Задача 9.10.

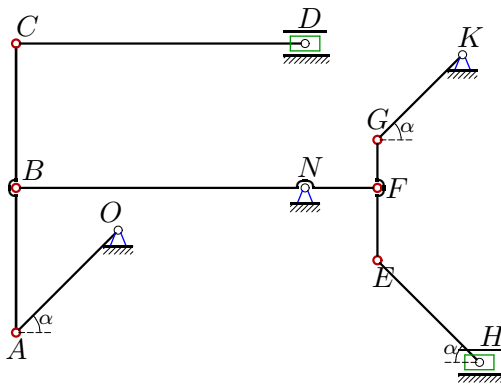
Павлов Максим Александрович



$\omega_{OA} = 3 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 20, BC = 10,$
 $BF = 50, NF = 50,$
 $CD = 25, EH = 30,$
 $FG = 10, GE = 45,$
 $OA = 20, KG = 25.$
 $a_A, a_B, a_C - ?$

Задача 9.11.

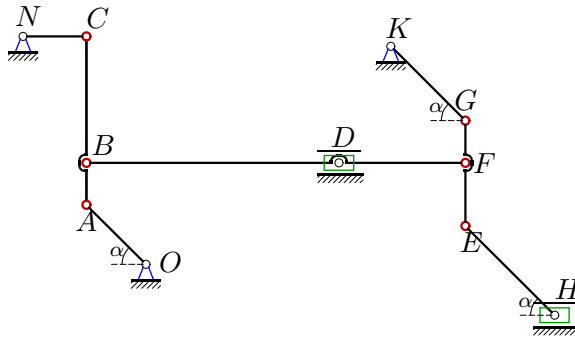
Палаткин Павел Евгеньевич



$\omega_{BF} = 4 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 30, BC = 30,$
 $NB = 60, NF = 15,$
 $CD = 60, EH = 30,$
 $FE = 15, FG = 10,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

Задача 9.12.

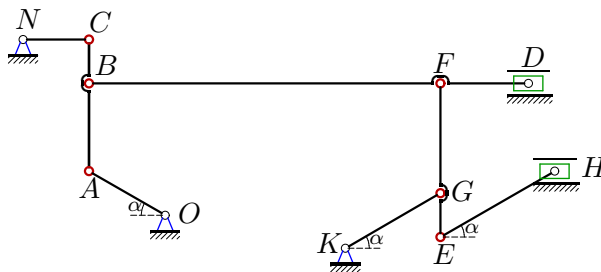
Романов Никита Андреевич



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

Задача 9.13.

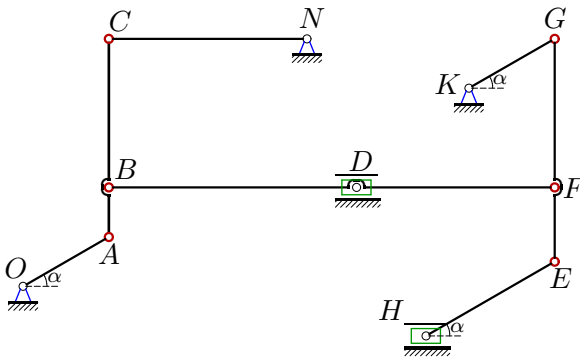
Сыч Анастасия Владимировна



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

Задача 9.14.

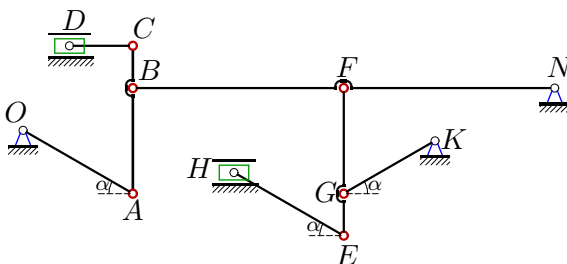
Телятник Богдан Сергеевич



$\omega_{OA} = 2$ рад/с, $\alpha = 30^\circ$,
 $AB = 10$, $BC = 30$,
 $DB = 50$, $DF = 40$,
 $NC = 40$, $EH = 30$,
 $FE = 15$, $FG = 30$,
 $OA = 20$, $KG = 20$.
 a_A , a_B , a_C - ?

Задача 9.15.

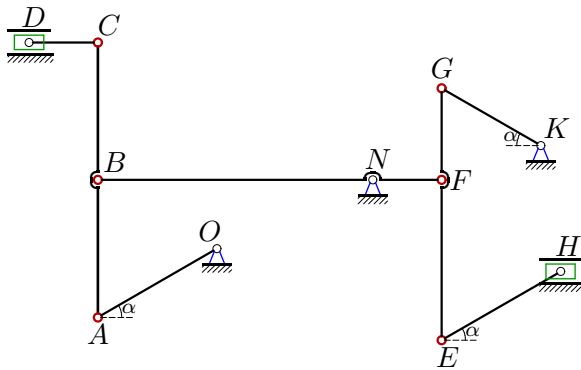
Федоров Владислав Антонович



$\omega_{KG} = 1$ рад/с, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 50$, $NF = 50$,
 $CD = 15$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 30$, $KG = 25$.
 a_G , a_F , a_E - ?

Задача 9.16.

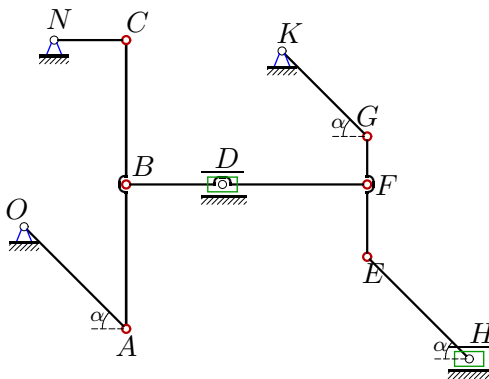
Хамурадов Магомед Вахитович



$\omega_{KG} = 3 \text{ рад/с}, \alpha = 30^\circ,$
 $AB = 30, BC = 30,$
 $NB = 60, NF = 15,$
 $CD = 15, EH = 30,$
 $FE = 35, FG = 20,$
 $OA = 30, KG = 25.$
 $a_G, a_F, a_E - ?$

Задача 9.17.

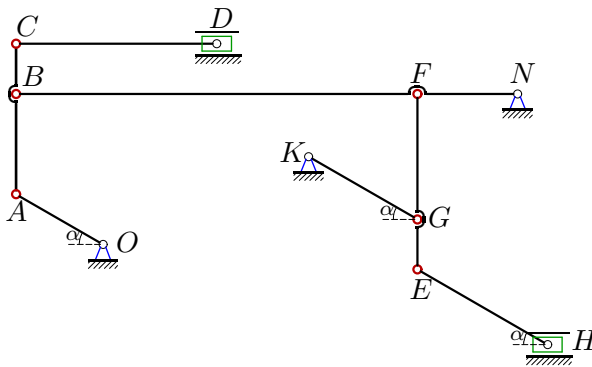
Холостова Арина Алексеевна



$\omega_{OA} = 3 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 30, BC = 30,$
 $DB = 20, DF = 30,$
 $NC = 15, EH = 30,$
 $FE = 15, FG = 10,$
 $OA = 30, KG = 25.$
 $a_A, a_B, a_C - ?$

Задача 9.18.

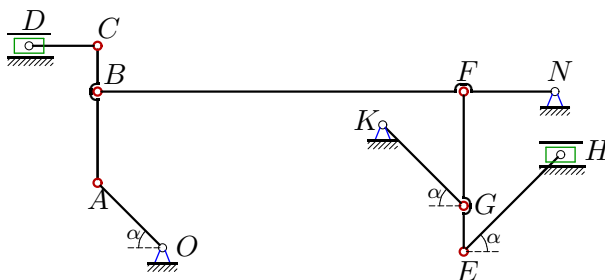
Чеботарь Евгений Евгеньевич



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

Задача 9.19.

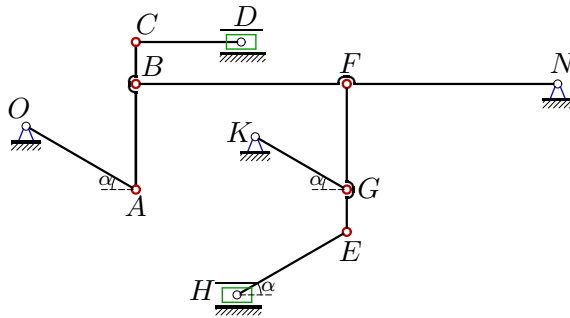
Черниченко Александр Александрович



$\omega_{KG} = 4 \text{ рад/с}, \alpha = 45^\circ,$
 $AB = 20, BC = 10,$
 $BF = 80, NF = 20,$
 $CD = 15, EH = 30,$
 $FG = 25, GE = 10,$
 $OA = 20, KG = 25.$
 $a_G, a_F, a_E - ?$

Задача 9.20.

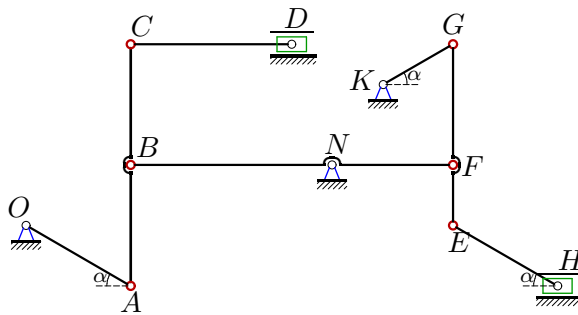
Шилкин Алексей Дмитриевич



$\omega_{KG} = 4 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 25$, $BC = 10$,
 $BF = 50$, $NF = 50$,
 $CD = 25$, $EH = 30$,
 $FG = 25$, $GE = 10$,
 $OA = 30$, $KG = 25$.
 a_G , a_F , a_E - ?

Задача 9.21.

Юдицкий Илья Евгеньевич



$\omega_{OA} = 1 \text{ рад/с}$, $\alpha = 30^\circ$,
 $AB = 30$, $BC = 30$,
 $NB = 50$, $NF = 30$,
 $CD = 40$, $EH = 30$,
 $FE = 15$, $FG = 30$,
 $OA = 30$, $KG = 20$.
 a_A , a_B , a_C - ?