

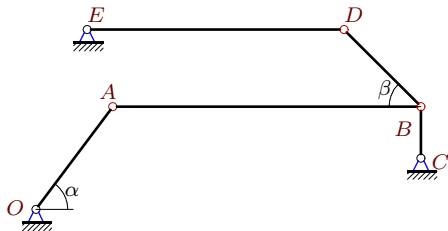
Кинематический анализ механизма (5 звеньев)

В указанном положении механизма задана угловая скорость одного из его звеньев. Длины звеньев даны в сантиметрах. Стержни, направление которых не указано, считать вертикальными или горизонтальными. Найти угловые скорости звеньев механизма.

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

Задача К-23.1.

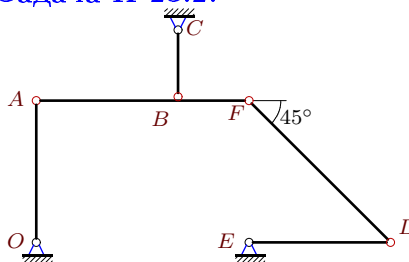
111



$\omega_{OA} = 60\text{c}^{-1}$, $OA = 5$, $AB = 12$, $BC = 2$, $DE = 10$, $BD = 3\sqrt{2}$, $\cos \alpha = 0,6$, $\beta = 45^\circ$.

Задача К-23.2.

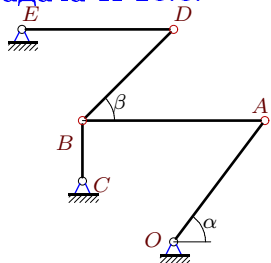
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$\omega_{OA} = 1\text{c}^{-1}$, $OA = 2$, $AB = 2$, $BF = 1$, $BC = 1$, $DE = 2$, $DF = 2\sqrt{2}$.

Задача К-23.3.

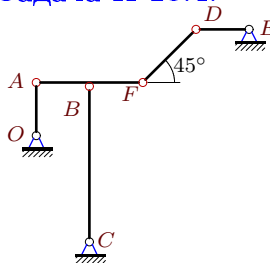
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$\omega_{OA} = 30\text{c}^{-1}$, $OA = 5$, $AB = 6$, $BC = 2$, $DE = 5$, $BD = 3\sqrt{2}$, $\cos \alpha = 0,6$, $\beta = 45^\circ$.

Задача К-23.4.

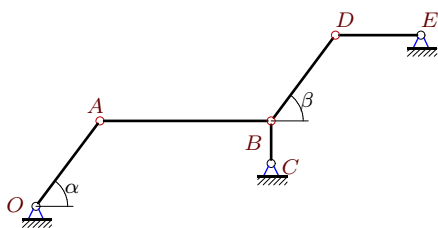
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$\omega_{OA} = 3\text{c}^{-1}$, $OA = 1$, $AB = 1$, $BF = 1$, $BC = 3$, $DE = 1$, $DF = \sqrt{2}$.

Задача К-23.5.

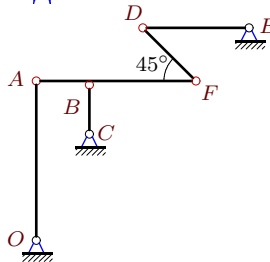
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$\omega_{OA} = 8\text{c}^{-1}$, $OA = 5$, $AB = 8$, $BC = 2$, $DE = 4$, $BD = 5$, $\cos \alpha = 0,6$, $\cos \beta = 0,6$.

Задача К-23.6.

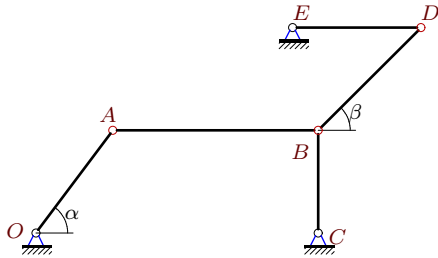
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$\omega_{OA} = 2\text{c}^{-1}$, $OA = 3$, $AB = 1$, $BF = 2$, $BC = 1$, $DE = 2$, $DF = \sqrt{2}$.

Задача К-23.7.

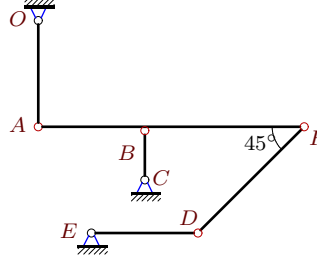
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$\omega_{OA} = 40c^{-1}$, $OA = 5$, $AB = 8$, $BC = 4$, $DE = 5$, $BD = 4\sqrt{2}$, $\cos \alpha = 0,6$, $\beta = 45^\circ$.

Задача К-23.8.

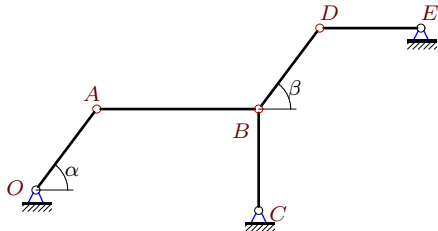
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$\omega_{OA} = 1c^{-1}$, $OA = 2$, $AB = 2$, $BF = 3$, $BC = 1$, $DE = 2$, $DF = 2\sqrt{2}$.

Задача К-23.9.

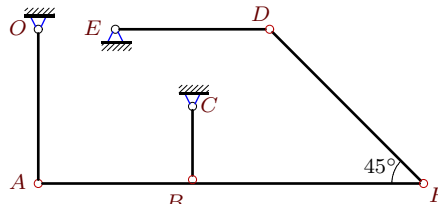
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$\omega_{OA} = 40c^{-1}$, $OA = 5$, $AB = 8$, $BC = 5$, $DE = 5$, $BD = 5$, $\cos \alpha = 0,6$, $\cos \beta = 0,6$.

Задача К-23.10.

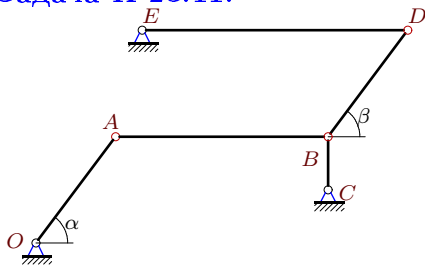
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$\omega_{OA} = 1c^{-1}$, $OA = 2$, $AB = 2$, $BF = 3$, $BC = 1$, $DE = 2$, $DF = 2\sqrt{2}$.

Задача К-23.11.

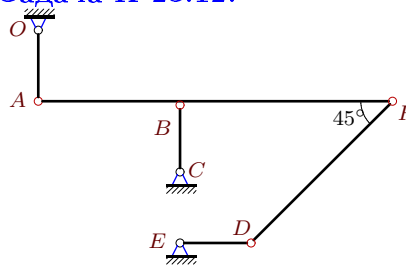
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$\omega_{OA} = 40c^{-1}$, $OA = 5$, $AB = 8$, $BC = 2$, $DE = 10$, $BD = 5$, $\cos \alpha = 0,6$, $\cos \beta = 0,6$.

Задача К-23.12.

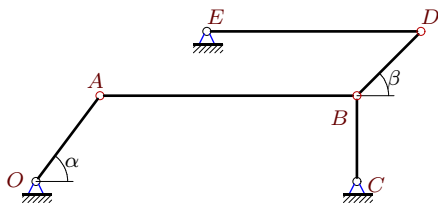
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$\omega_{OA} = 2c^{-1}$, $OA = 1$, $AB = 2$, $BF = 3$, $BC = 1$, $DE = 1$, $DF = 2\sqrt{2}$.

Задача К-23.13.

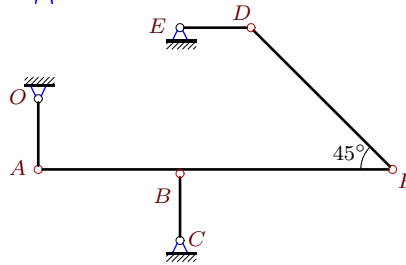
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$\omega_{OA} = 60c^{-1}$, $OA = 5$, $AB = 12$, $BC = 4$, $DE = 10$, $BD = 3\sqrt{2}$, $\cos \alpha = 0,6$, $\beta = 45^\circ$.

Задача К-23.14.

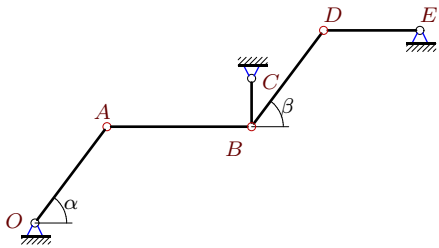
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$\omega_{OA} = 2c^{-1}$, $OA = 1$, $AB = 2$, $BF = 3$, $BC = 1$, $DE = 1$, $DF = 2\sqrt{2}$.

Задача К-23.15.

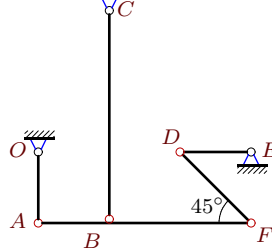
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$\omega_{OA} = 4c^{-1}$, $OA = 5$, $AB = 6$, $BC = 2$, $DE = 4$,
 $BD = 5$, $\cos \alpha = 0,6$, $\cos \beta = 0,6$.

Задача К-23.16.

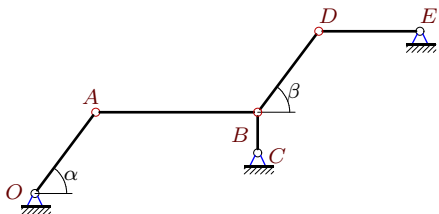
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$\omega_{OA} = 3c^{-1}$, $OA = 1$, $AB = 1$, $BF = 2$, $BC = 3$,
 $DE = 1$, $DF = \sqrt{2}$.

Задача К-23.17.

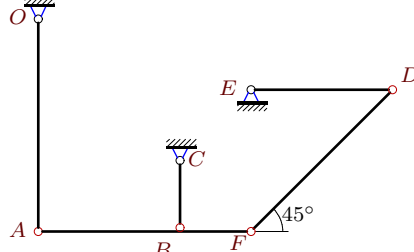
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$\omega_{OA} = 40c^{-1}$, $OA = 5$, $AB = 8$, $BC = 2$, $DE = 5$,
 $BD = 5$, $\cos \alpha = 0,6$, $\cos \beta = 0,6$.

Задача К-23.18.

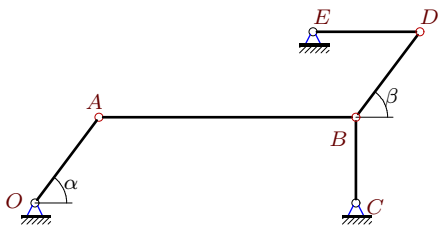
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$\omega_{OA} = 2c^{-1}$, $OA = 3$, $AB = 2$, $BF = 1$, $BC = 1$,
 $DE = 2$, $DF = 2\sqrt{2}$.

Задача К-23.19.

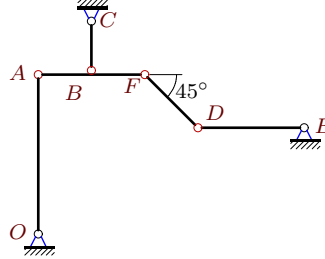
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$\omega_{OA} = 20c^{-1}$, $OA = 5$, $AB = 12$, $BC = 4$, $DE = 5$,
 $BD = 5$, $\cos \alpha = 0,6$, $\cos \beta = 0,6$.

Задача К-23.20.

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$\omega_{OA} = 2c^{-1}$, $OA = 3$, $AB = 1$, $BF = 1$, $BC = 1$,
 $DE = 2$, $DF = \sqrt{2}$.

К-23

Ответы.

Кинематический анализ механизма (5 звеньев)

05-Apr-19

№	ω_{ABF}	ω_{AB}	ω_{BC}	ω_{BCF}	ω_{DB}	ω_{DF}	ω_{DE}	ω_{CE}
1	—	15	120	—	80	—	24	—
2	0	—	2	—	—	1	1	—
3	—	15	60	—	40	—	24	—
4	0	—	1	—	—	3	3	—
5	—	3	16	—	8	—	6	—
6	0	—	6	—	—	6	3	—
7	—	15	40	—	40	—	32	—
8	0	—	2	—	—	1	1	—
9	—	15	32	—	40	—	24	—
10	0	—	2	—	—	1	1	—
11	—	15	80	—	40	—	12	—
12	0	—	2	—	—	1	2	—
13	—	15	60	—	80	—	24	—
14	0	—	2	—	—	1	2	—
15	—	2	8	—	4	—	3	—
16	0	—	1	—	—	3	3	—
17	—	15	80	—	40	—	24	—
18	0	—	6	—	—	3	3	—
19	—	5	20	—	20	—	12	—
20	0	—	6	—	—	6	3	—

К-23 файл 23k111-AnsA