

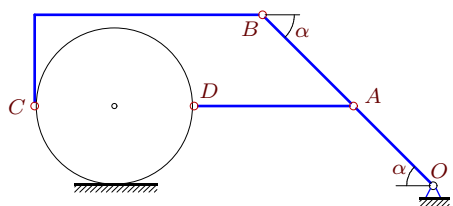
Кинематический анализ плоского механизма

В указанном положении механизма задана угловая скорость одного из звеньев. Длины звеньев даны в сантиметрах. Стержни, направление которых не указано, считать горизонтальными или вертикальными. Диск катится по горизонтальной поверхности без проскальзывания. Найти угловые скорости всех звеньев механизма.

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

Задача 26.1.

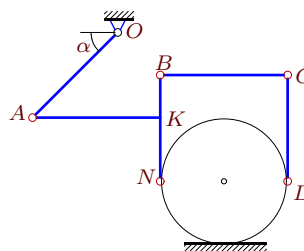
41



$$\omega_{OA_z} = 1 \frac{1}{c}, R = 7, OA = 7\sqrt{2}, \\ AB = 8\sqrt{2}, AD = 14, \alpha = 45^\circ.$$

Задача 26.2.

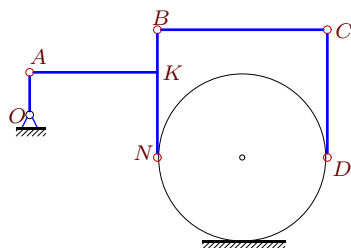
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$$\omega_{OA_z} = 3 \frac{1}{c}, R = 3, OA = 4\sqrt{2}, \\ AK = 6, BK = 2, KN = 3, CD = 5, \alpha = 45^\circ.$$

Задача 26.3.

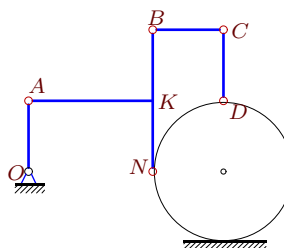
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$$\omega_{OA_z} = 2 \frac{1}{c}, R = 6, OA = 3, \\ AK = 9, BK = 3, KN = 6, CD = 9.$$

Задача 26.4.

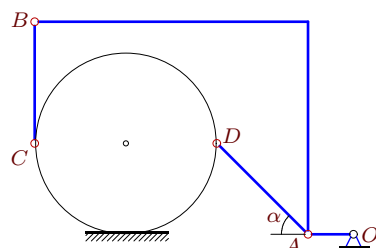
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$$\omega_{OA_z} = 3 \frac{1}{c}, R = 4, OA = 4, \\ AK = 7, BK = 4, KN = 4, CD = 4.$$

Задача 26.5.

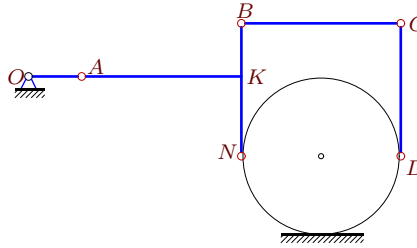
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$$\omega_{OA_z} = 4 \frac{1}{c}, R = 6, OA = 3, \\ AD = 6\sqrt{2}, BC = 8, \alpha = 45^\circ.$$

Задача 26.6.

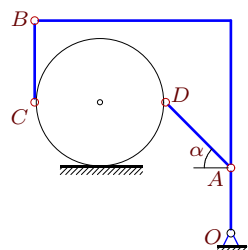
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$$\omega_{OA_z} = 3 \frac{1}{c}, R = 3, OA = 2, \\ AK = 6, BK = 2, KN = 3, CD = 5.$$

Задача 26.7.

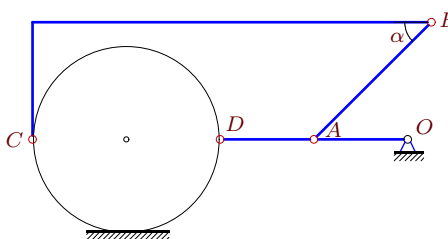
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$$\omega_{OA_z} = 30 \frac{1}{c}, R = 4, OA = 4, \\ AD = 4\sqrt{2}, BC = 5, \alpha = 45^\circ.$$

Задача 26.8.

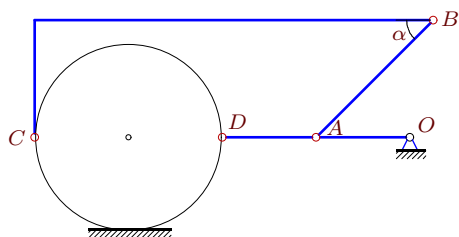
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$$\omega_{OA_z} = 3 \frac{1}{c}, R = 4, OA = 4, \\ AB = 5\sqrt{2}, AD = 4, \alpha = 45^\circ.$$

Задача 26.9.

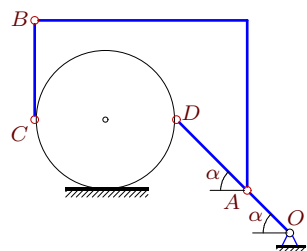
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$$\omega_{OA_z} = 3\frac{1}{c}, R = 4, OA = 4, \\ AB = 5\sqrt{2}, AD = 4, \alpha = 45^\circ.$$

Задача 26.11.

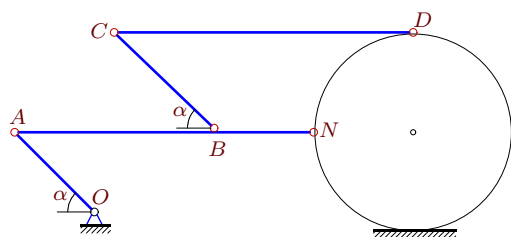
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$$\omega_{OA_z} = 35\frac{1}{c}, R = 5, OA = 3\sqrt{2}, \\ AD = 5\sqrt{2}, BC = 7, \alpha = 45^\circ.$$

Задача 26.13.

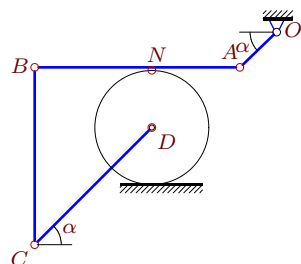
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$$\omega_{OA_z} = 15\frac{1}{c}, R = 5, OA = 4\sqrt{2}, \\ AB = 10, BN = 5, BC = 5\sqrt{2}, CD = 15, \alpha = 45^\circ$$

Задача 26.15.

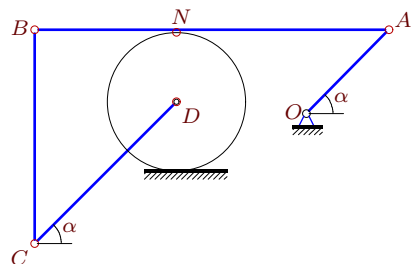
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$$\omega_{OA_z} = 144\frac{1}{c}, R = 8, OA = 5\sqrt{2}, \\ CD = 16\sqrt{2}, AN = 12, AB = 28, \alpha = 45^\circ.$$

Задача 26.17.

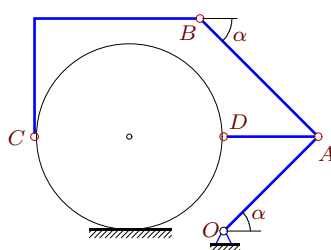
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$$\omega_{OA_z} = 108\frac{1}{c}, R = 6, OA = 7\sqrt{2}, \\ CD = 12\sqrt{2}, AN = 18, AB = 30, \alpha = 45^\circ.$$

Задача 26.10.

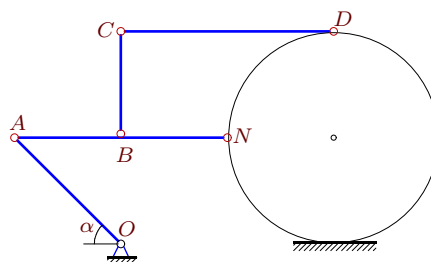
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$$\omega_{OA_z} = 3\frac{1}{c}, R = 4, OA = 4\sqrt{2}, \\ AB = 5\sqrt{2}, AD = 4, \alpha = 45^\circ.$$

Задача 26.12.

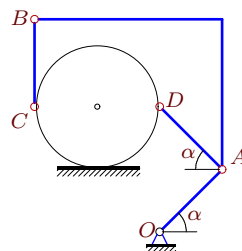
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$$\omega_{OA_z} = 2\frac{1}{c}, R = 5, OA = 5\sqrt{2}, \\ AB = 5, BN = 5, BC = 5\sqrt{2}, CD = 10, \alpha = 45^\circ$$

Задача 26.14.

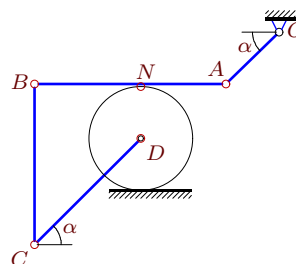
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$$\omega_{OA_z} = 21\frac{1}{c}, R = 5, OA = 5\sqrt{2}, \\ AD = 5\sqrt{2}, BC = 7, \alpha = 45^\circ.$$

Задача 26.16.

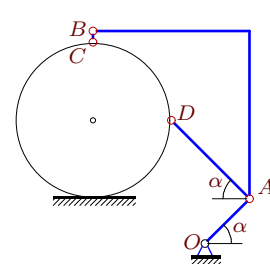
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$$\omega_{OA_z} = 24\frac{1}{c}, R = 5, OA = 5\sqrt{2}, \\ CD = 10\sqrt{2}, AN = 8, AB = 18, \alpha = 45^\circ.$$

Задача 26.18.

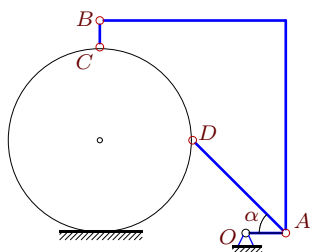
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$$\omega_{OA_z} = 7\frac{1}{c}, R = 7, OA = 4\sqrt{2}, \\ AD = 7\sqrt{2}, BC = 1, \alpha = 45^\circ.$$

Задача 26.19.

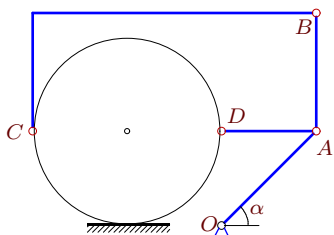
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$$\omega_{OA_z} = 14 \frac{1}{c}, R = 7, OA = 3, AD = 7\sqrt{2}, BC = 2, \alpha = 45^\circ.$$

Задача 26.21.

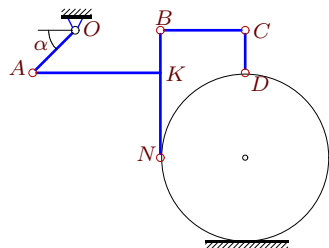
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$$\omega_{OA_z} = 3 \frac{1}{c}, R = 4, OA = 4\sqrt{2}, AB = 5, AD = 4, \alpha = 45^\circ.$$

Задача 26.23.

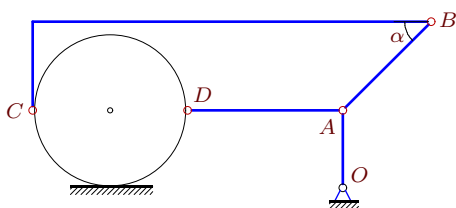
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$$\omega_{OA_z} = 2 \frac{1}{c}, R = 6, OA = 3\sqrt{2}, AK = 9, BK = 3, KN = 6, CD = 3, \alpha = 45^\circ.$$

Задача 26.25.

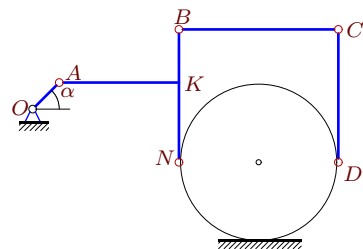
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$$\omega_{OA_z} = 4 \frac{1}{c}, R = 7, OA = 7, AB = 8\sqrt{2}, AD = 14, \alpha = 45^\circ.$$

Задача 26.27.

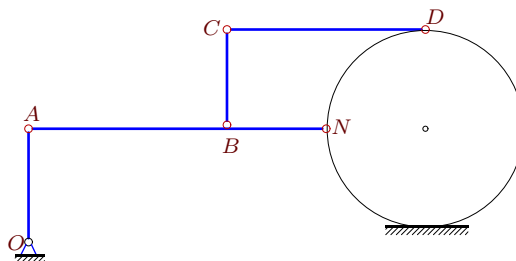
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$$\omega_{OA_z} = 3 \frac{1}{c}, R = 6, OA = 2\sqrt{2}, AK = 9, BK = 4, KN = 6, CD = 10, \alpha = 45^\circ.$$

Задача 26.20.

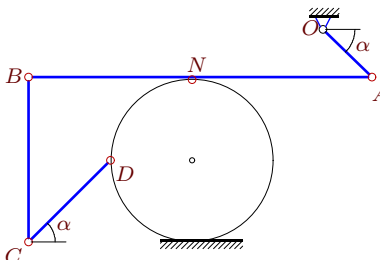
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$$\omega_{OA_z} = 21 \frac{1}{c}, R = 7, OA = 8, AB = 14, BN = 7, BC = 7\sqrt{2}, CD = 14.$$

Задача 26.22.

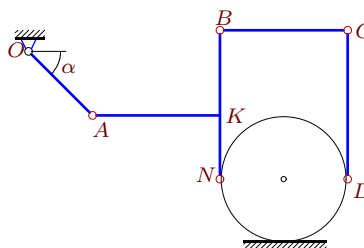
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$$\omega_{OA_z} = 110 \frac{1}{c}, R = 5, OA = 3\sqrt{2}, CD = 5\sqrt{2}, AN = 11, AB = 21, \alpha = 45^\circ.$$

Задача 26.24.

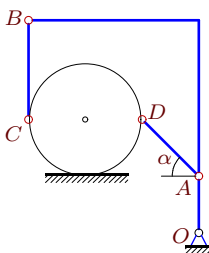
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$$\omega_{OA_z} = 1 \frac{1}{c}, R = 3, OA = 3\sqrt{2}, AK = 6, BK = 4, KN = 3, CD = 7, \alpha = 45^\circ.$$

Задача 26.26.

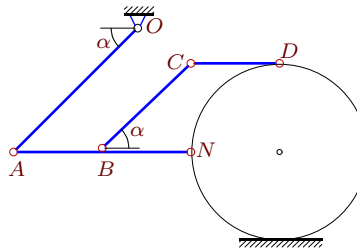
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$$\omega_{OA_z} = 42 \frac{1}{c}, R = 4, OA = 4, AD = 4\sqrt{2}, BC = 7, \alpha = 45^\circ.$$

Задача 26.28.

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$$\omega_{OA_z} = 5 \frac{1}{c}, R = 5, OA = 7\sqrt{2}, AB = 5, BN = 5, BC = 5\sqrt{2}, CD = 5, \alpha = 45^\circ.$$

Кинематический анализ плоского механизма

№	ω_{AB_z}	ω_{BC_z}	ω_{CD_z}	ω_{DA_z}	$\omega_{\text{диск}_z}$
1	0	0	—	-1	1
2	8	-12	8	—	-12
3	-2	3	-2	—	3
4	-4	7	-15	—	7
5	-1	-1	—	-1	-1
6	-2	2	-2	—	2
7	5	21	—	-15	15
8	-1	-1	—	-3	0
9	-1	-1	—	-3	0
10	2	2	—	0	3
11	-7	3	—	-21	0
12	0	2	1	—	2
13	0	12	8	—	12
14	14	24	—	0	21
15	-60	-55	-60	—	-45
16	-15	-14	-15	—	-12
17	42	49	42	—	63
18	2	2	—	0	4
19	3	3	—	3	3
20	-8	24	8	—	24
21	2	2	—	0	3
22	30	30	93	—	-33
23	4	-5	22	—	-5
24	0	-1	0	—	-1
25	1	1	—	-2	4
26	7	23	—	-21	21
27	-4	5	-4	—	5
28	7	-7	7	—	-7