

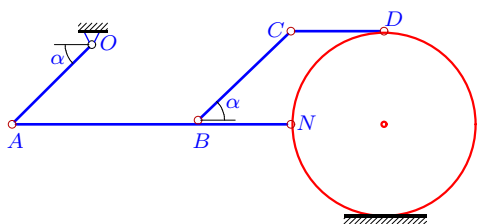
Кинематический анализ плоского механизма

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

Задача К-26.1.

13

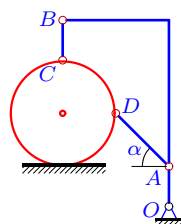


$$\omega_{OA_z} = 7c^{-1}, R = 7, OA = 6\sqrt{2},$$

$$AB = 14, BN = 7, BC = 7\sqrt{2}, CD = 7, \alpha = 45^\circ$$

Задача К-26.2.

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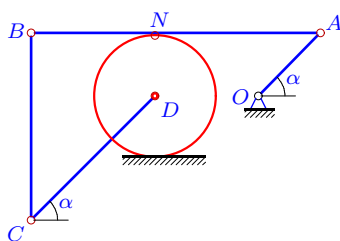


$$\omega_{OA_z} = 8c^{-1}, R = 4, OA = 3,$$

$$AD = 4\sqrt{2}, BC = 3, \alpha = 45^\circ.$$

Задача К-26.3.

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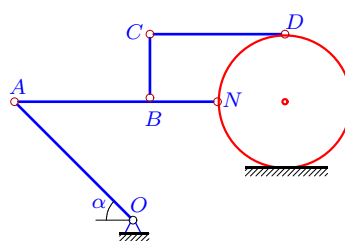


$$\omega_{OA_z} = 24c^{-1}, R = 6, OA = 6\sqrt{2},$$

$$CD = 12\sqrt{2}, AN = 16, AB = 28, \alpha = 45^\circ.$$

Задача К-26.4.

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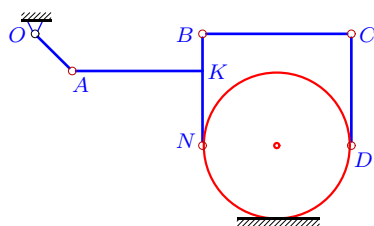


$$\omega_{OA_z} = 8c^{-1}, R = 4, OA = 7\sqrt{2},$$

$$AB = 8, BN = BC = 4, CD = 8, \alpha = 45^\circ$$

Задача К-26.5.

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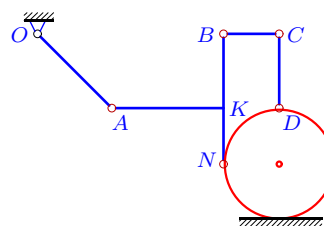


$$\omega_{OA_z} = 2c^{-1}, R = 4, OA = 2\sqrt{2},$$

$$AK = 7, BK = 2, KN = 4, CD = 6, \alpha = 45^\circ.$$

Задача К-26.6.

13

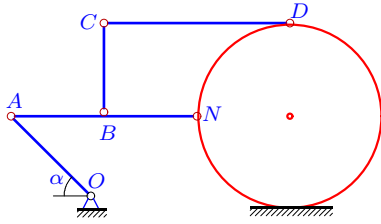


$$\omega_{OA_z} = 3c^{-1}, R = 3, OA = 4\sqrt{2},$$

$$AK = 6, BK = 4, KN = 3, CD = 4, \alpha = 45^\circ.$$

Задача К-26.7.

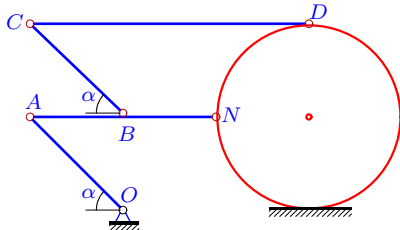
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$\omega_{OA_z} = 7c^{-1}$, $R = 7$, $OA = 6\sqrt{2}$,
 $AB = 7$, $BN = BC = 7$, $CD = 14$, $\alpha = 45^\circ$

Задача К-26.9.

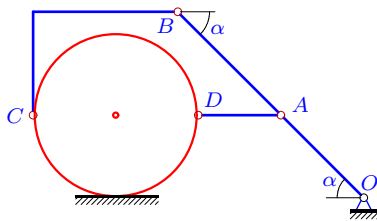
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$\omega_{OA_z} = 3c^{-1}$, $R = 6$, $OA = 6\sqrt{2}$,
 $AB = 6$, $BN = 6$, $BC = 6\sqrt{2}$, $CD = 18$, $\alpha = 45^\circ$

Задача К-26.11.

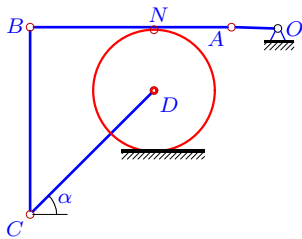
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$\omega_{OA_z} = 1c^{-1}$, $R = 4$, $OA = 4\sqrt{2}$,
 $AB = 5\sqrt{2}$, $AD = 4$, $\alpha = 45^\circ$.

Задача К-26.13.

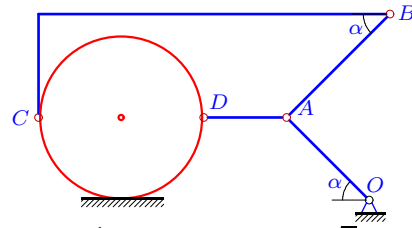
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$\omega_{OA_z} = 5c^{-1}$, $R = 8$, $OA = 6$,
 $CD = 16\sqrt{2}$, $AN = 10$, $AB = 26$, $\alpha = 45^\circ$.

Задача К-26.8.

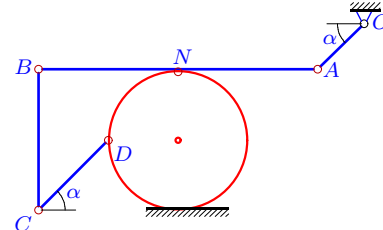
13



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

Задача К-26.10.

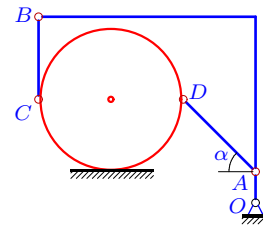
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$\omega_{OA_z} = 3c^{-1}$, $R = 6$, $OA = 4\sqrt{2}$,
 $CD = 6\sqrt{2}$, $AN = 12$, $AB = 24$, $\alpha = 45^\circ$.

Задача К-26.12.

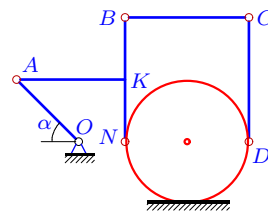
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$\omega_{OA_z} = 28c^{-1}$, $R = 7$, $OA = 3$,
 $AD = 7\sqrt{2}$, $BC = 8$, $\alpha = 45^\circ$.

Задача К-26.14.

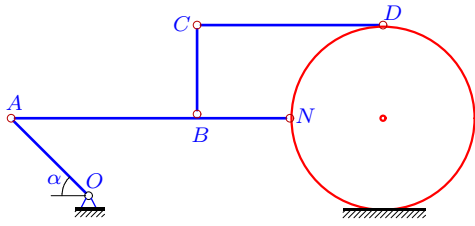
13



$\omega_{OA_z} = 1c^{-1}$, $R = 4$, $OA = 4\sqrt{2}$,
 $AK = 7$, $BK = 4$, $KN = 4$, $CD = 8$, $\alpha = 45^\circ$.

Задача К-26.15.

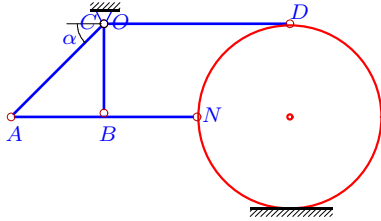
13



$\omega_{OA_z} = 12c^{-1}$, $R = 6$, $OA = 5\sqrt{2}$,
 $AB = 12$, $BN = BC = 6$, $CD = 12$, $\alpha = 45^\circ$

Задача К-26.17.

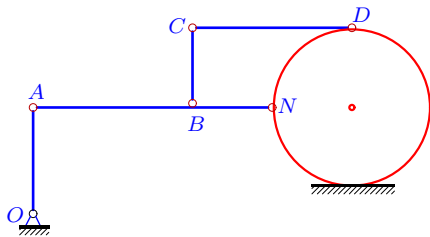
13



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

Задача К-26.19.

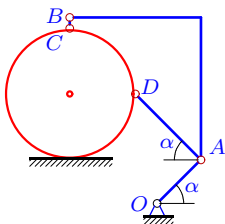
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$\omega_{OA_z} = 9c^{-1}$, $R = 6$, $OA = 8$,
 $AB = 12$, $BN = BC = 6$, $CD = 12$.

Задача К-26.21.

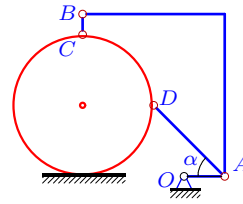
13



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

Задача К-26.16.

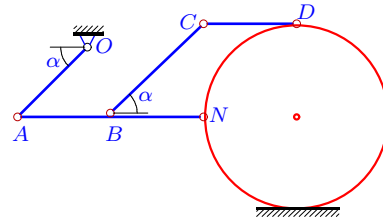
13



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

Задача К-26.18.

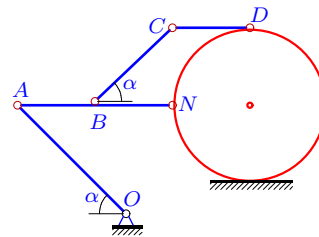
13



$\omega_{OA_z} = 4c^{-1}$, $R = 4$, $OA = 3\sqrt{2}$,
 $AB = 4$, $BN = 4$, $BC = 4\sqrt{2}$, $CD = 4$, $\alpha = 45^\circ$

Задача К-26.20.

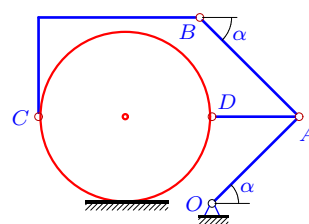
13



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

Задача К-26.22.

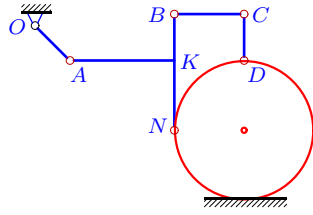
13



$\omega_{OA_z} = 3c^{-1}$, $R = 7$, $OA = 7\sqrt{2}$,
 $AB = 8\sqrt{2}$, $AD = 7$, $\alpha = 45^\circ$.

Задача К-26.23.

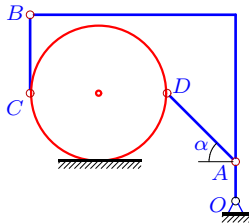
13



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

Задача К-26.25.

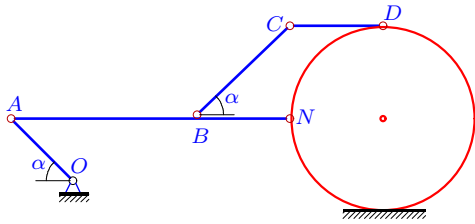
13



$\omega_{OA_z} = 21c^{-1}$, $R = 7$, $OA = 4$,
 $AD = 7\sqrt{2}$, $BC = 8$, $\alpha = 45^\circ$.

Задача К-26.27.

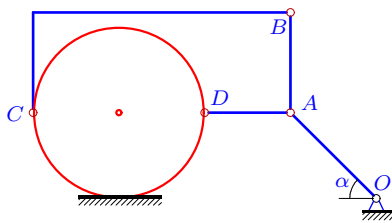
13



$\omega_{OA_z} = 3c^{-1}$, $R = 6$, $OA = 4\sqrt{2}$,
 $AB = 12$, $BN = 6$, $BC = 6\sqrt{2}$, $CD = 6$, $\alpha = 45^\circ$

Задача К-26.29.

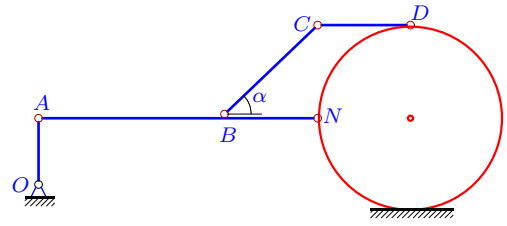
13



$\omega_{OA_z} = 1c^{-1}$, $R = 6$, $OA = 6\sqrt{2}$,
 $AB = 7$, $AD = 6$, $\alpha = 45^\circ$.

Задача К-26.24.

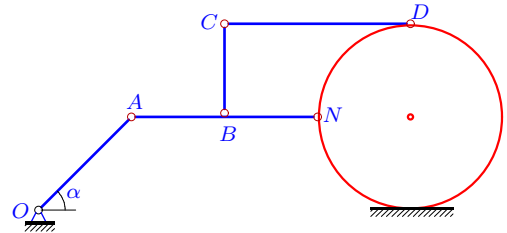
13



$\omega_{OA_z} = 21c^{-1}$, $R = 7$, $OA = 5$,
 $AB = 14$, $BN = 7$, $BC = 7\sqrt{2}$, $CD = 7$, $\alpha = 45^\circ$

Задача К-26.26.

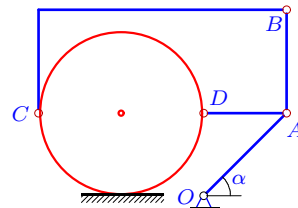
13



$\omega_{OA_z} = 1c^{-1}$, $R = 6$, $OA = 6\sqrt{2}$,
 $AB = 6$, $BN = BC = 6$, $CD = 12$, $\alpha = 45^\circ$

Задача К-26.28.

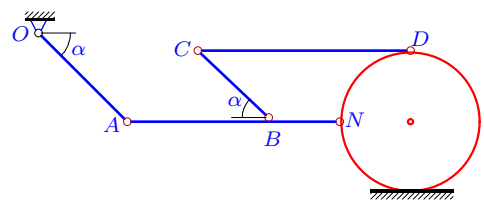
13



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

Задача К-26.30.

13



$\omega_{OA_z} = 12c^{-1}$, $R = 4$, $OA = 5\sqrt{2}$,
 $AB = 8$, $BN = 4$, $BC = 4\sqrt{2}$, $CD = 12$, $\alpha = 45^\circ$

К-26 Ответы.**Кинематический анализ плоского механизма**

12.05.2013

№	ω_{AB_z}	ω_{BC_z}	ω_{CD_z}	ω_{DA_z}	$\omega_{диск_z}$
1	4	-6	4	—	-6
2	0	0	—	-3	3
3	9	10	9	—	12
4	0	14	7	—	14
5	0	-1	0	—	-1
6	0	-4	3	—	-4
7	0	6	3	—	6
8	0	0	—	-2	1
9	0	3	2	—	3
10	-1	-1	-1	—	-1
11	0	0	—	-2	1
12	2	9	—	-6	6
13	-3	-2	-3	—	0
14	0	1	0	—	1
15	0	10	5	—	10
16	2	2	—	2	2
17	1	-1	0	—	-1
18	3	-3	3	—	-3
19	-4	12	4	—	12
20	0	7	0	—	7
21	1	1	—	0	2
22	2	2	—	0	3
23	0	-2	3	—	-2
24	-5	15	-5	—	15
25	2	9	—	-6	6
26	-1	1	0	—	1
27	0	2	0	—	2
28	2	2	—	0	3
29	0	0	—	-2	1
30	0	-15	-10	—	-15

К-26 файл о26k13A