

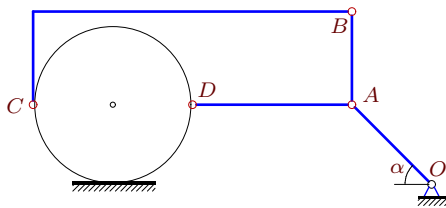
## Кинематический анализ плоского механизма

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

**Задача 26.1.**

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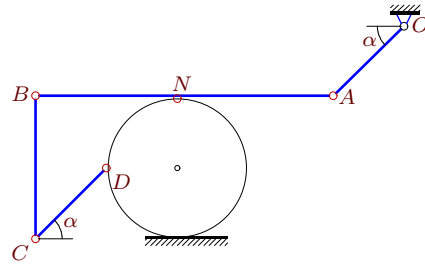


$$\omega_{OA_z} = 1\frac{1}{c}, R = 6, OA = 6\sqrt{2},$$

$$AB = 7, AD = 12, \alpha = 45^\circ.$$

**Задача 26.2.**

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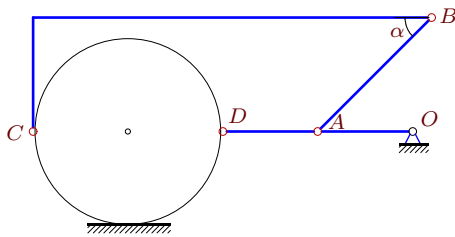


$$\omega_{OA_z} = 22\frac{1}{c}, R = 5, OA = 5\sqrt{2},$$

$$CD = 5\sqrt{2}, AN = 11, AB = 21, \alpha = 45^\circ.$$

**Задача 26.3.**

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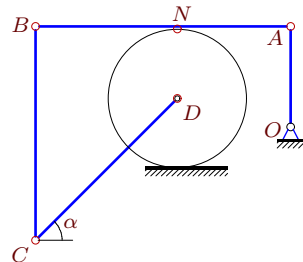


$$\omega_{OA_z} = 3\frac{1}{c}, R = 5, OA = 5,$$

$$AB = 6\sqrt{2}, AD = 5, \alpha = 45^\circ.$$

**Задача 26.4.**

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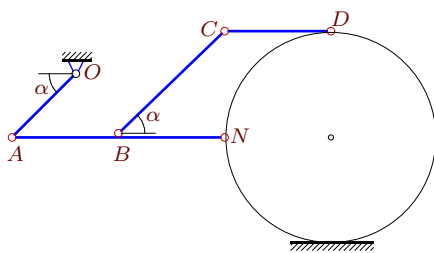


$$\omega_{OA_z} = 30\frac{1}{c}, R = 5, OA = 7,$$

$$CD = 10\sqrt{2}, AN = 8, AB = 18, \alpha = 45^\circ.$$

**Задача 26.5.**

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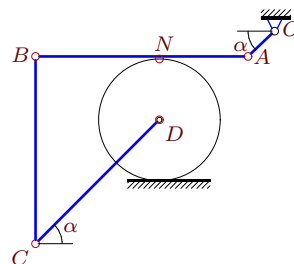


$$\omega_{OA_z} = 5\frac{1}{c}, R = 5, OA = 3\sqrt{2},$$

$$AB = 5, BN = 5, BC = 5\sqrt{2}, CD = 5, \alpha = 45^\circ$$

**Задача 26.6.**

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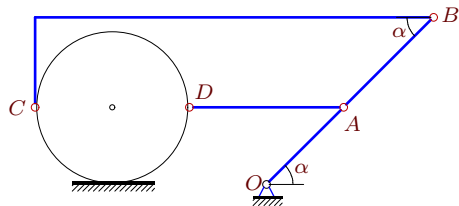


$$\omega_{OA_z} = 70\frac{1}{c}, R = 7, OA = 3\sqrt{2},$$

$$CD = 14\sqrt{2}, AN = 10, AB = 24, \alpha = 45^\circ.$$

**Задача 26.7.**

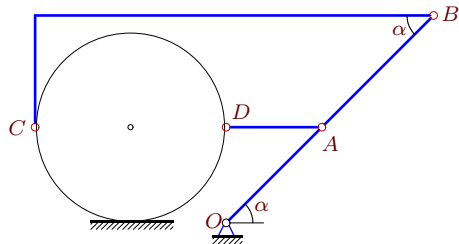
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$\omega_{OA_z} = 2\frac{1}{c}$ ,  $R = 6$ ,  $OA = 6\sqrt{2}$ ,  
 $AB = 7\sqrt{2}$ ,  $AD = 12$ ,  $\alpha = 45^\circ$ .

**Задача 26.9.**

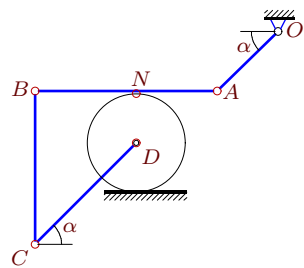
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$\omega_{OA_z} = 3\frac{1}{c}$ ,  $R = 6$ ,  $OA = 6\sqrt{2}$ ,  
 $AB = 7\sqrt{2}$ ,  $AD = 6$ ,  $\alpha = 45^\circ$ .

**Задача 26.11.**

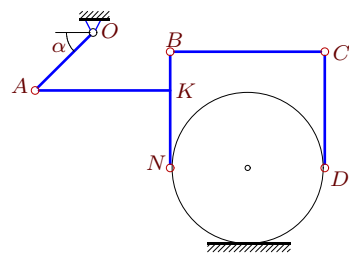
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$\omega_{OA_z} = 20\frac{1}{c}$ ,  $R = 5$ ,  $OA = 6\sqrt{2}$ ,  
 $CD = 10\sqrt{2}$ ,  $AN = 8$ ,  $AB = 18$ ,  $\alpha = 45^\circ$ .

**Задача 26.13.**

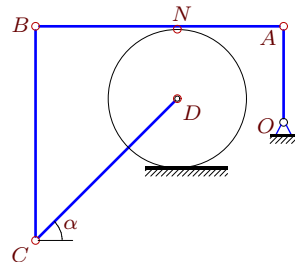
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$\omega_{OA_z} = 4\frac{1}{c}$ ,  $R = 4$ ,  $OA = 3\sqrt{2}$ ,  
 $AK = 7$ ,  $BK = 2$ ,  $KN = 4$ ,  $CD = 6$ ,  $\alpha = 45^\circ$ .

**Задача 26.8.**

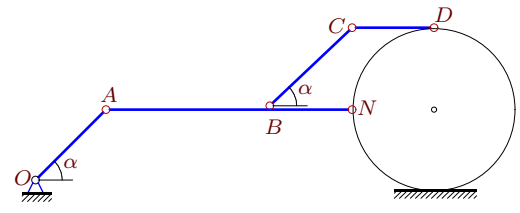
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$\omega_{OA_z} = 9\frac{1}{c}$ ,  $R = 6$ ,  $OA = 8$ ,  
 $CD = 12\sqrt{2}$ ,  $AN = 9$ ,  $AB = 21$ ,  $\alpha = 45^\circ$ .

**Задача 26.10.**

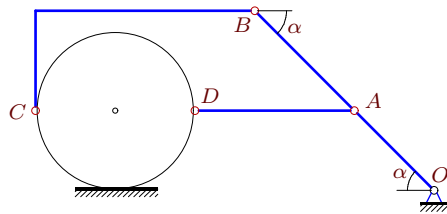
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$\omega_{OA_z} = 7\frac{1}{c}$ ,  $R = 7$ ,  $OA = 6\sqrt{2}$ ,  
 $AB = 14$ ,  $BN = 7$ ,  $BC = 7\sqrt{2}$ ,  $CD = 7$ ,  $\alpha = 45^\circ$ .

**Задача 26.12.**

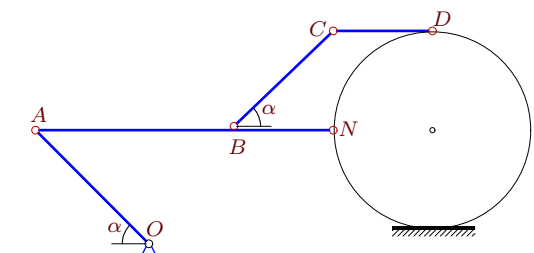
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$\omega_{OA_z} = 1\frac{1}{c}$ ,  $R = 4$ ,  $OA = 4\sqrt{2}$ ,  
 $AB = 5\sqrt{2}$ ,  $AD = 8$ ,  $\alpha = 45^\circ$ .

**Задача 26.14.**

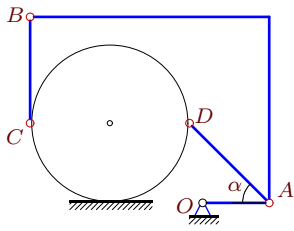
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$\omega_{OA_z} = 7\frac{1}{c}$ ,  $R = 7$ ,  $OA = 8\sqrt{2}$ ,  
 $AB = 14$ ,  $BN = 7$ ,  $BC = 7\sqrt{2}$ ,  $CD = 7$ ,  $\alpha = 45^\circ$ .

**Задача 26.15.**

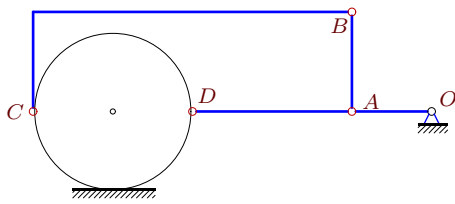
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$\omega_{OA_z} = 12\frac{1}{c}$ ,  $R = 6$ ,  $OA = 5$ ,  
 $AD = 6\sqrt{2}$ ,  $BC = 8$ ,  $\alpha = 45^\circ$ .

**Задача 26.17.**

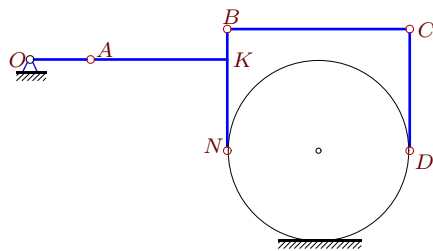
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$\omega_{OA_z} = 4\frac{1}{c}$ ,  $R = 4$ ,  $OA = 4$ ,  
 $AB = 5$ ,  $AD = 8$ .

**Задача 26.19.**

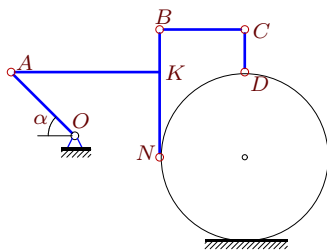
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$\omega_{OA_z} = 3\frac{1}{c}$ ,  $R = 6$ ,  $OA = 4$ ,  
 $AK = 9$ ,  $BK = 2$ ,  $KN = 6$ ,  $CD = 8$ .

**Задача 26.21.**

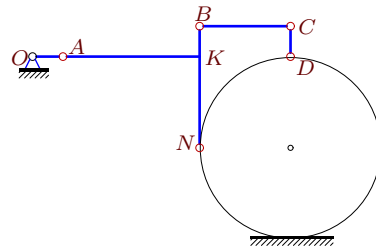
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$\omega_{OA_z} = 4\frac{1}{c}$ ,  $R = 4$ ,  $OA = 3\sqrt{2}$ ,  
 $AK = 7$ ,  $BK = 2$ ,  $KN = 4$ ,  $CD = 2$ ,  $\alpha = 45^\circ$ .

**Задача 26.16.**

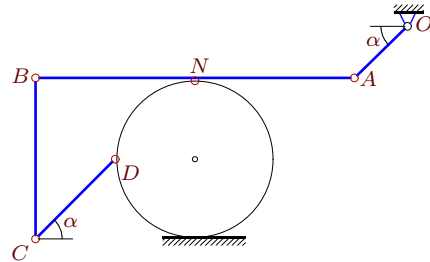
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$\omega_{OA_z} = 3\frac{1}{c}$ ,  $R = 6$ ,  $OA = 2$ ,  
 $AK = 9$ ,  $BK = 2$ ,  $KN = 6$ ,  $CD = 2$ .

**Задача 26.18.**

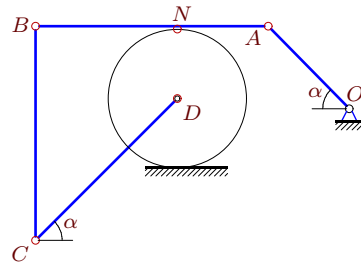
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$\omega_{OA_z} = 3\frac{1}{c}$ ,  $R = 6$ ,  $OA = 4\sqrt{2}$ ,  
 $CD = 6\sqrt{2}$ ,  $AN = 12$ ,  $AB = 24$ ,  $\alpha = 45^\circ$ .

**Задача 26.20.**

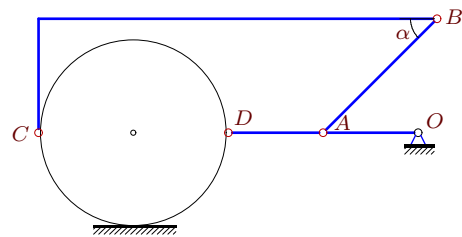
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$\omega_{OA_z} = 189\frac{1}{c}$ ,  $R = 7$ ,  $OA = 8\sqrt{2}$ ,  
 $CD = 14\sqrt{2}$ ,  $AN = 9$ ,  $AB = 23$ ,  $\alpha = 45^\circ$ .

**Задача 26.22.**

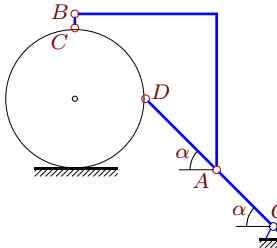
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$\omega_{OA_z} = 3\frac{1}{c}$ ,  $R = 5$ ,  $OA = 5$ ,  
 $AB = 6\sqrt{2}$ ,  $AD = 5$ ,  $\alpha = 45^\circ$ .

**Задача 26.23.**

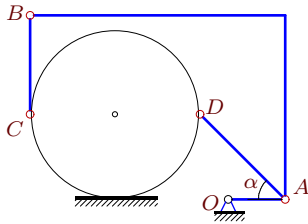
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$\omega_{OA_z} = 5\frac{1}{c}, R = 5, OA = 4\sqrt{2},$   
 $AD = 5\sqrt{2}, BC = 1, \alpha = 45^\circ.$

**Задача 26.25.**

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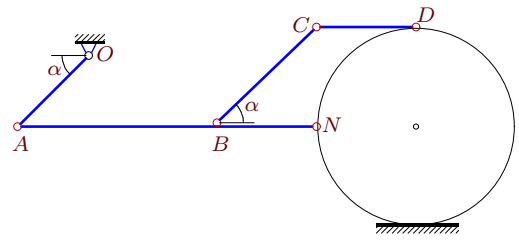


$\omega_{OA_z} = 3\frac{1}{c}, R = 6, OA = 4,$   
 $AD = 6\sqrt{2}, BC = 7, \alpha = 45^\circ.$

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**Задача 26.24.**

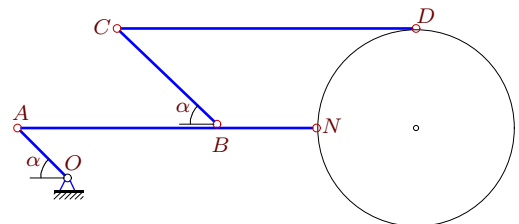
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$\omega_{OA_z} = 21\frac{1}{c}, R = 7, OA = 5\sqrt{2},$   
 $AB = 14, BN = 7, BC = 7\sqrt{2}, CD = 7, \alpha = 45^\circ$

**Задача 26.26.**

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$\omega_{OA_z} = 6\frac{1}{c}, R = 6, OA = 3\sqrt{2},$   
 $AB = 12, BN = 6, BC = 6\sqrt{2}, CD = 18, \alpha = 45^\circ$

**Кинематический анализ плоского механизма**

**26.10.2010**

№	$\omega_{AB_z}$	$\omega_{BC_z}$	$\omega_{CD_z}$	$\omega_{DA_z}$	$\omega_{диск_z}$
1	0	0	-	-1	1
2	-10	-10	-9	-	-11
3	-1	-1	-	-3	0
4	0	7	0	-	21
5	3	-3	3	-	-3
6	-21	-19	-21	-	-15
7	1	1	-	0	2
8	0	2	0	-	6
9	2	2	-	0	3
10	-4	6	-4	-	6
11	-15	-14	-15	-	-12
12	0	0	-	-1	1
13	8	-11	8	-	-11
14	0	8	0	-	8
15	5	5	-	5	5
16	-2	2	-14	-	2
17	-1	-1	-	-2	0
18	-1	-1	-1	-	-1
19	-4	4	-4	-	4
20	-168	-76	-168	-	108
21	0	3	-6	-	3
22	-1	-1	-	-3	0
23	-2	-2	-	-4	0
24	10	-15	10	-	-15
25	1	1	-	1	1
26	0	3	2	-	3