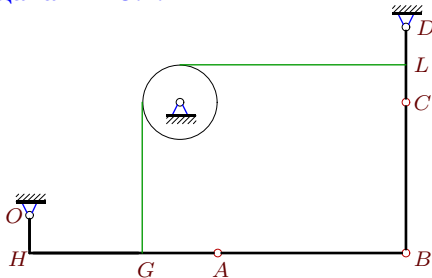


Плоский механизм с блоком

В указанном положении механизма задана угловая скорость одного из звеньев. Длины звеньев даны в сантиметрах. Стержни и нити, направление которых не указано, считать горизонтальными или вертикальными. Нить огибает диск радиусом r без проскальзывания. Найти угловые скорости всех звеньев механизма.

Задача K28.1.

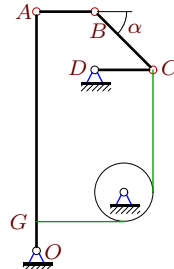
3



$$OH = 1, CB = 4, HA = AB = 5, CD = 2, r = 1, CL = 1, AG = 2, \omega_{disk} = -12 \text{ c}^{-1}.$$

Задача K28.2.

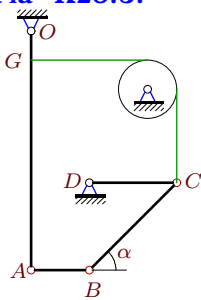
3



$$OA = 8, CB = 2\sqrt{2}, CD = 2, AB = 2, OG = 1, r = 1, \omega_{OA} = -2 \text{ c}^{-1}, \alpha = 45^\circ.$$

Задача K28.3.

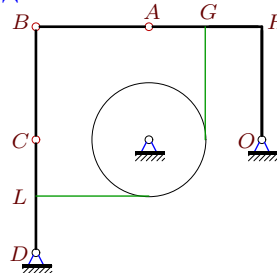
3



$$OA = 8, CB = 3\sqrt{2}, CD = 3, AB = 2, OG = 1, r = 1, \omega_{OA} = -6 \text{ c}^{-1}, \alpha = 45^\circ.$$

Задача K28.4.

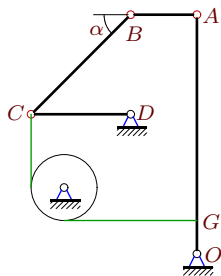
3



$$OH = 2, CB = HA = AB = 2, CD = 2, r = 1, CL = 1, AG = 1, \omega_{CD} = 1 \text{ c}^{-1}.$$

Задача K28.5.

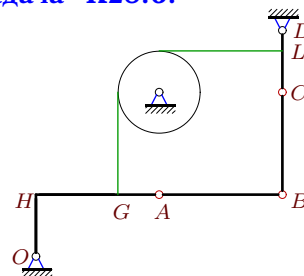
3



$$OA = 7, CB = 3\sqrt{2}, CD = 3, AB = 2, OG = 1, r = 1, \omega_{disk} = 3 \text{ c}^{-1}, \alpha = 45^\circ.$$

Задача K28.6.

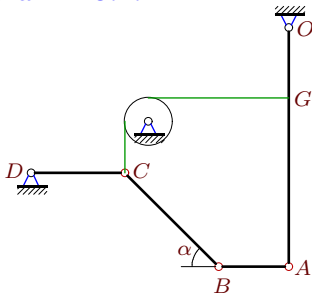
3



$$OH = 3, CB = 5, HA = AB = 6, CD = 3, r = 2, CL = 2, AG = 2, \omega_{CD} = 4 \text{ c}^{-1}.$$

Задача K28.7.

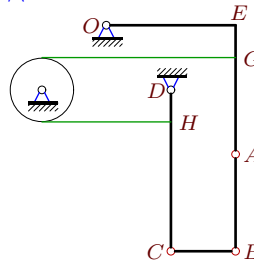
3



$OA = 10, CB = 4\sqrt{2}, CD = 4, AB = 3,$
 $OG = 3, r = 1, \omega_{CD} = -9 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.8.

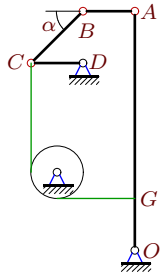
3



$OE = 4, CB = 2, AB = 3, CD = 5, r = 1,$
 $CH = 4, AG = 3, GE = 1, \omega_{OA} = -1 \text{ c}^{-1}.$

Задача K28.9.

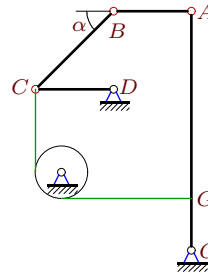
3



$OA = 9, CB = 2\sqrt{2}, CD = 2, AB = 2,$
 $OG = 2, r = 1, \omega_{OA} = -2 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.10.

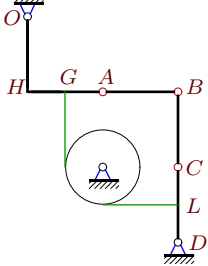
3



$OA = 9, CB = 3\sqrt{2}, CD = 3, AB = 3,$
 $OG = 2, r = 1, \omega_{CB} = -9 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.11.

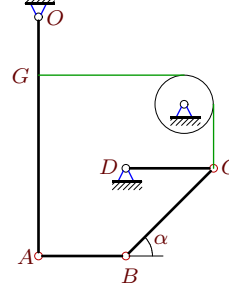
3



$OH = 2, CB = HA = AB = 2, CD = 2,$
 $r = 1, CL = 1, AG = 1, \omega_{CB} = -2 \text{ c}^{-1}.$

Задача K28.12.

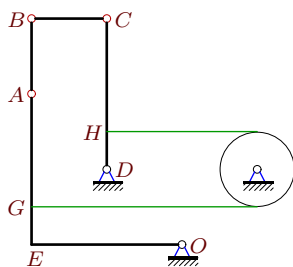
3



$OA = 8, CB = 3\sqrt{2}, CD = 3, AB = 3,$
 $OG = 2, r = 1, \omega_{disk} = 6 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.13.

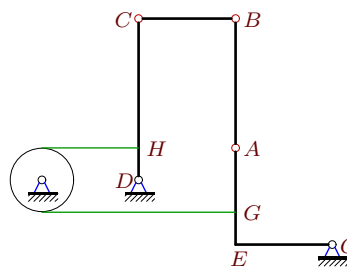
3



$OE = 4, CB = 2, AB = 2, CD = 4, r = 1,$
 $CH = 3, AG = 3, GE = 1, \omega_{disk} = 1 \text{ c}^{-1}.$

Задача K28.14.

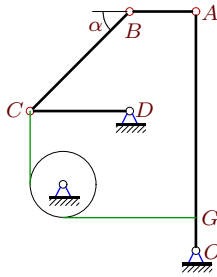
3



$OE = 3, CB = 3, AB = 4, CD = 5, r = 1,$
 $CH = 4, AG = 2, GE = 1, \omega_{AB} = 2 \text{ c}^{-1}.$

Задача K28.15.

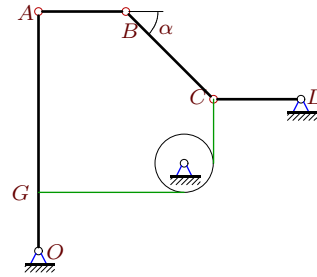
3



$OA = 7, CB = 3\sqrt{2}, CD = 3, AB = 2,$
 $OG = 1, r = 1, \omega_{disk} = 3 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.16.

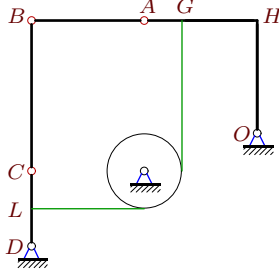
3



$OA = 8, CB = 3\sqrt{2}, CD = 3, AB = 3,$
 $OG = 2, r = 1, \omega_{OA} = -3 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.17.

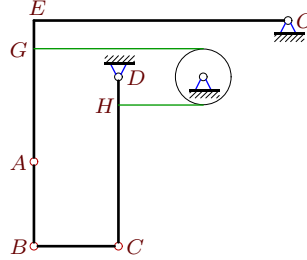
3



$OH = 3, CB = 4, HA = AB = 3, CD = 2,$
 $r = 1, CL = 1, AG = 1, \omega_{CD} = 8 \text{ c}^{-1}.$

Задача K28.18.

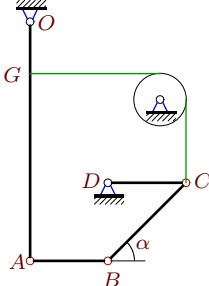
3



$OE = 9, CB = 3, AB = 3, CD = 6, r = 1,$
 $CH = 5, AG = 4, GE = 1, \omega_{CB} = -9 \text{ c}^{-1}.$

Задача K28.19.

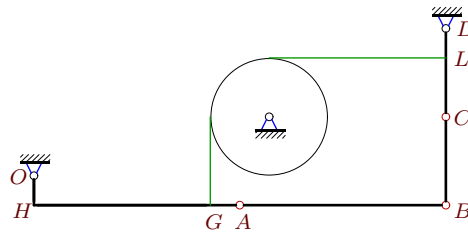
3



$OA = 9, CB = 3\sqrt{2}, CD = 3, AB = 3,$
 $OG = 2, r = 1, \omega_{CD} = 2 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.20.

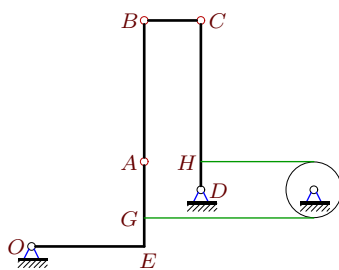
3



$OH = 1, CB = 3, HA = AB = 7, CD = 3,$
 $r = 2, CL = 2, AG = 1, \omega_{disk} = -9 \text{ c}^{-1}.$

Задача K28.21.

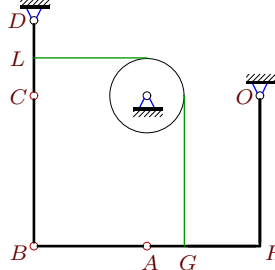
3



$OE = 4, CB = 2, AB = 5, CD = 6, r = 1,$
 $CH = 5, AG = 2, GE = 1, \omega_{CB} = 10 \text{ c}^{-1}.$

Задача K28.22.

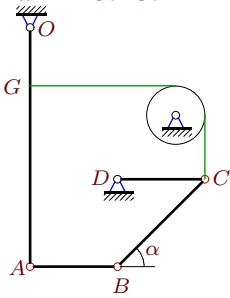
3



$OH = 4, CB = 4, HA = AB = 3, CD = 2,$
 $r = 1, CL = 1, AG = 1, \omega_{disk} = -2 \text{ c}^{-1}.$

Задача K28.23.

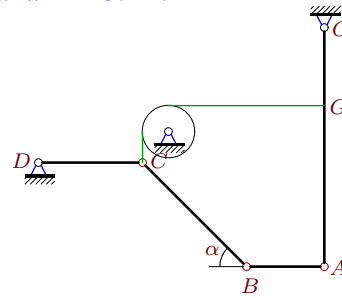
3



$OA = 8, CB = 3\sqrt{2}, CD = 3, AB = 3,$
 $OG = 2, r = 1, \omega_{CD} = 2 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.24.

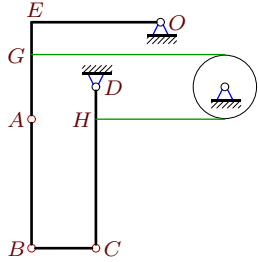
3



$OA = 9, CB = 4\sqrt{2}, CD = 4, AB = 3,$
 $OG = 3, r = 1, \omega_{AB} = 16 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.25.

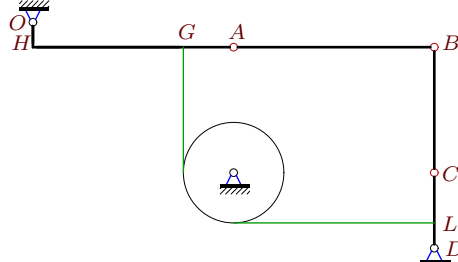
3



$OE = 4, CB = 2, AB = 4, CD = 5, r = 1,$
 $CH = 4, AG = 2, GE = 1, \omega_{CB} = -2 \text{ c}^{-1}.$

Задача K28.26.

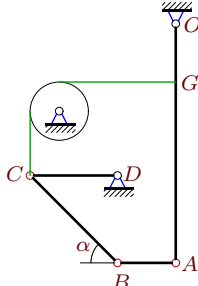
3



$OH = 1, CB = 5, HA = AB = 8, CD = 3,$
 $r = 2, CL = 2, AG = 2, \omega_{disk} = -15 \text{ c}^{-1}.$

Задача K28.27.

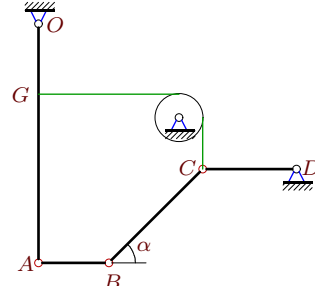
3



$OA = 8, CB = 3\sqrt{2}, CD = 3, AB = 2,$
 $OG = 2, r = 1, \omega_{CD} = 2 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.28.

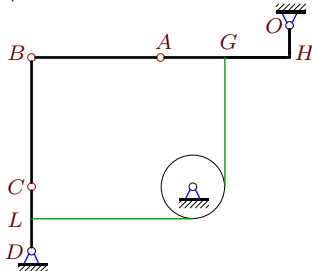
3



$OA = 10, CB = 4\sqrt{2}, CD = 4, AB = 3,$
 $OG = 3, r = 1, \omega_{AB} = 52 \text{ c}^{-1}, \alpha = 45^\circ.$

Задача K28.29.

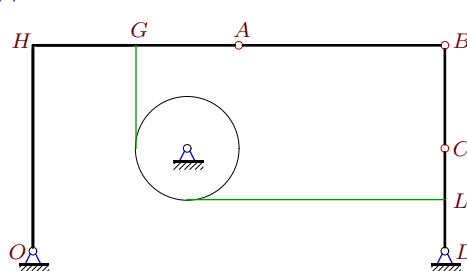
3



$OH = 1, CB = HA = AB = 4, CD = 2,$
 $r = 1, CL = 1, AG = 2, \omega_{disk} = -8 \text{ c}^{-1}.$

Задача K28.30.

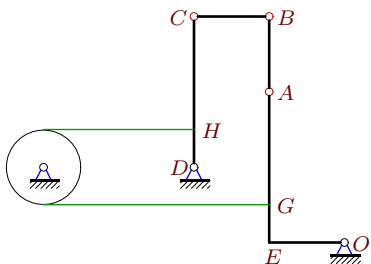
3



$OH = 4, CB = 2, HA = AB = 4, CD = 2,$
 $r = 1, CL = 1, AG = 2, \omega_{disk} = -2 \text{ c}^{-1}.$

Задача K28.31.

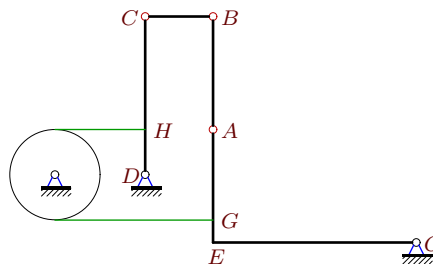
3



$OE = 2, CB = 2, AB = 2, CD = 4, r = 1,$
 $CH = 3, AG = 3, GE = 1, \omega_{disk} = 1 \text{ c}^{-1}.$

Задача K28.32.

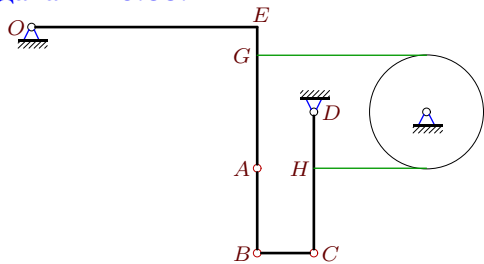
3



$OE = 9, CB = 3, AB = 5, CD = 7, r = 2,$
 $CH = 5, AG = 4, GE = 1, \omega_{CD} = 5 \text{ c}^{-1}.$

Задача K28.33.

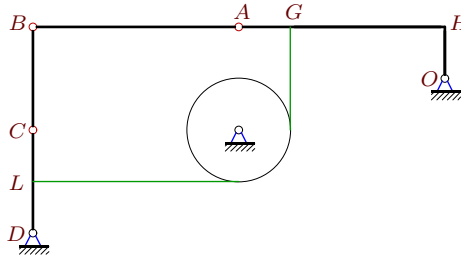
3



$OE = 8, CB = 2, AB = 3, CD = 5, r = 2,$
 $CH = 3, AG = 4, GE = 1, \omega_{OA} = -2 \text{ c}^{-1}.$

Задача K28.34.

3



$OH = 1, CB = 2, HA = AB = 4, CD = 2,$
 $r = 1, CL = 1, AG = 1, \omega_{CB} = -5 \text{ c}^{-1}.$

К28 Ответы.**Плоский механизм с блоком**

15.09.2011

№	ω_{OA_z}	ω_{AB_z}	ω_{CB_z}	ω_{CD_z}	ω_{disk_z}
1	4	-4	-5	12	—
2	—	9	-8	1	2
3	—	27	-16	2	6
4	1	-1	0	—	-1
5	-3	12	-7	1	—
6	1	-1	-3	—	-2
7	-12	52	-30	—	36
8	—	3	-2	1	1
9	—	11	-9	2	4
10	-3	11	—	2	6
11	1	-1	—	1	-1
12	-3	10	-8	2	—
13	-1	4	-2	1	—
14	-1	—	1	1	1
15	-3	12	-7	1	—
16	—	10	-8	-2	6
17	4	-4	-1	—	-8
18	-3	11	—	3	3
19	-3	11	-9	—	6
20	3	-3	-17	18	—
21	-5	9	—	5	5
22	1	-1	0	2	—
23	-3	10	-8	—	6
24	-4	—	-9	-3	12
25	-1	2	—	1	1
26	5	-5	-19	30	—
27	-3	15	-8	—	6
28	-12	—	-30	-9	36
29	4	-4	-5	8	—
30	1	-1	0	2	—
31	-1	4	1	1	—
32	-10	17	30	—	5
33	—	5	8	1	1
34	2	-2	—	6	-6

К28 файл о28к3А