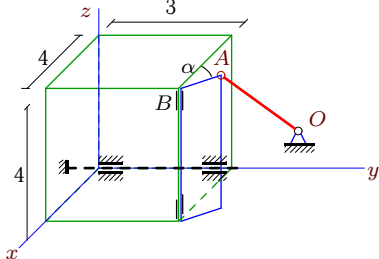


Шарнирный механизм с цилиндрическим шарниром

Прямоугольная пластина прикреплена цилиндрическим шарниром к параллелепипеду, вращающемуся с заданной угловой скоростью вокруг оси z или y , и к стержню OA со сферическими шарнирами по концам. Размеры и координаты опоры O даны в сантиметрах. Найти скорость шарнира A в заданном положении механизма.

Задача К-35.1.

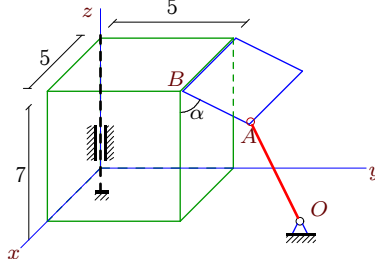
6



$$\omega_y = 45 \text{ с}^{-1}, AB = 2, \cos \alpha = 0.6, O(-2, 8, 0).$$

Задача К-35.2.

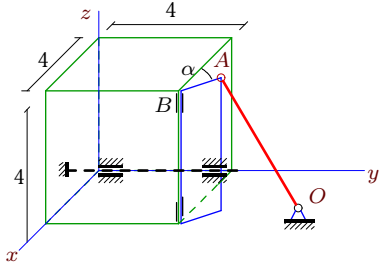
6



$$\omega_z = 95 \text{ с}^{-1}, AB = 3, \cos \alpha = 0.6, O(3, 8, 0).$$

Задача К-35.3.

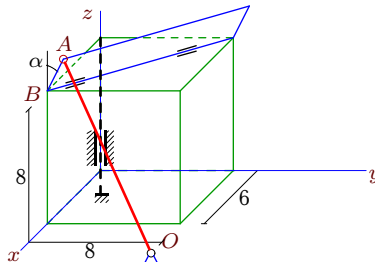
6



$$\omega_y = -5 \text{ с}^{-1}, AB = 1, \cos \alpha = 0.8, O(2, 6, 0).$$

Задача К-35.4.

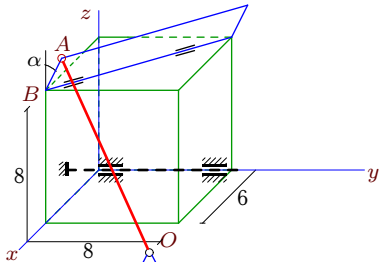
6



$$\omega_z = 80 \text{ с}^{-1}, AB = 5, \cos \alpha = 0.6, O(8, 8, 0).$$

Задача К-35.5.

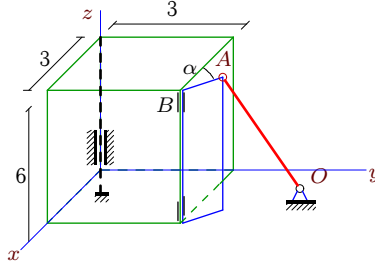
6



$$\omega_y = 1130 \text{ с}^{-1}, AB = 5, \cos \alpha = 0.6, O(7, 8, 0).$$

Задача К-35.6.

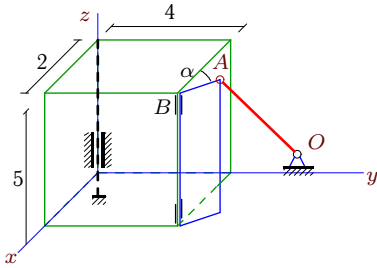
6



$$\omega_z = -10 \text{ с}^{-1}, AB = 2, \cos \alpha = 0.8, O(1, 6, 0).$$

Задача К-35.7.

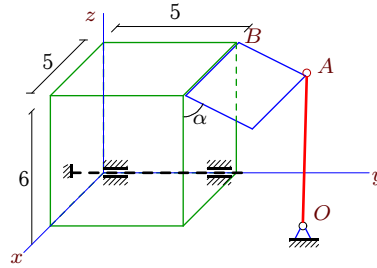
6



$\omega_z = 5 \text{ c}^{-1}$, $AB = 1$, $\cos \alpha = 0.8$,
 $O(-1, 6, 0)$.

Задача К-35.8.

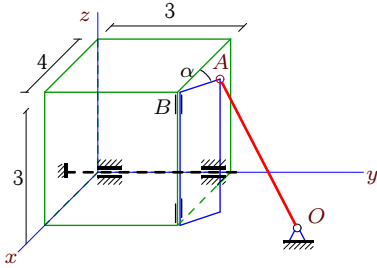
6



$\omega_y = -5 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.8$,
 $O(2, 10, 0)$.

Задача К-35.9.

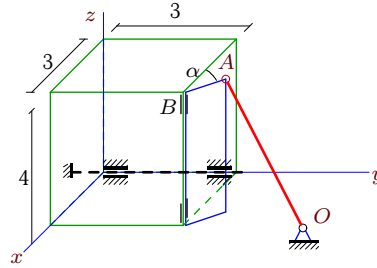
6



$\omega_y = -55 \text{ c}^{-1}$, $AB = 2$, $\cos \alpha = 0.6$,
 $O(3, 8, 0)$.

Задача К-35.10.

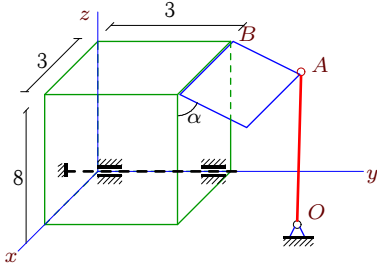
6



$\omega_y = -5 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.6$,
 $O(3, 7, 0)$.

Задача К-35.11.

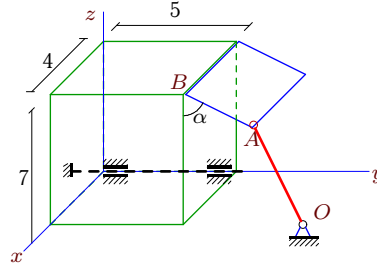
6



$\omega_y = 10 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.8$,
 $O(5, 7, 0)$.

Задача К-35.12.

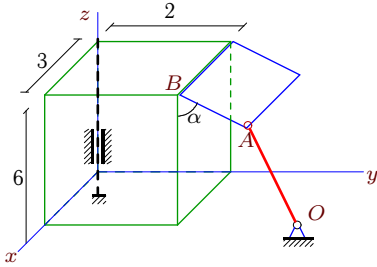
6



$\omega_y = 5 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.8$,
 $O(5, 10, 0)$.

Задача К-35.13.

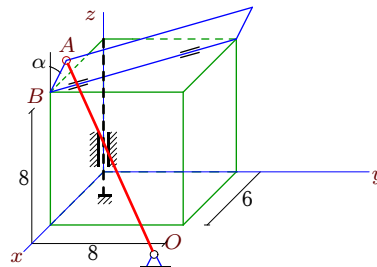
6



$\omega_z = 10 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.8$,
 $O(5, 6, 0)$.

Задача К-35.14.

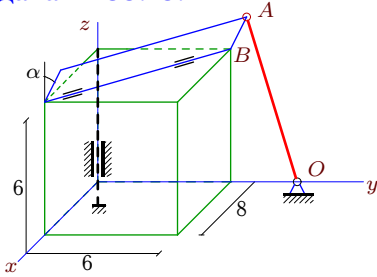
6



$\omega_z = 305 \text{ c}^{-1}$, $AB = 5$, $\cos \alpha = 0.6$,
 $O(7, 8, 0)$.

Задача К-35.15.

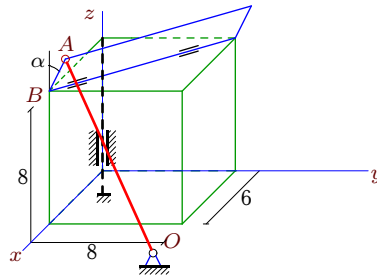
6



$\omega_z = 65 \text{ c}^{-1}$, $AB = 4$, $\cos \alpha = 0.6$,
 $O(0, 9, 0)$.

Задача К-35.16.

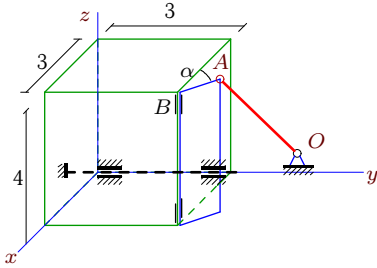
6



$\omega_z = 145 \text{ c}^{-1}$, $AB = 5$, $\cos \alpha = 0.6$,
 $O(6, 8, 0)$.

Задача К-35.17.

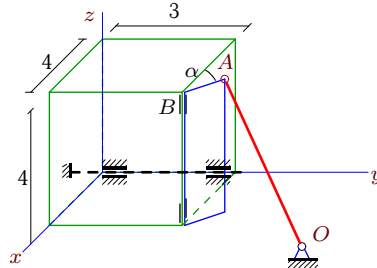
6



$\omega_y = 5 \text{ c}^{-1}$, $AB = 2$, $\cos \alpha = 0.6$,
 $O(-1, 7, 0)$.

Задача К-35.18.

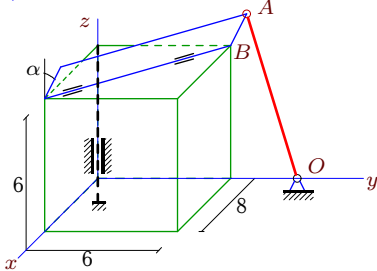
6



$\omega_y = -15 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.6$,
 $O(4, 7, 0)$.

Задача К-35.19.

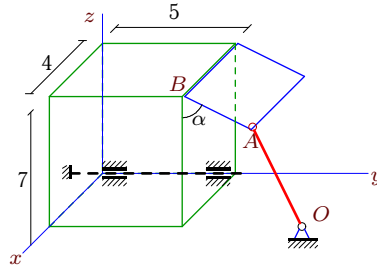
6



$\omega_z = 15 \text{ c}^{-1}$, $AB = 4$, $\cos \alpha = 0.6$,
 $O(0, 8, 0)$.

Задача К-35.20.

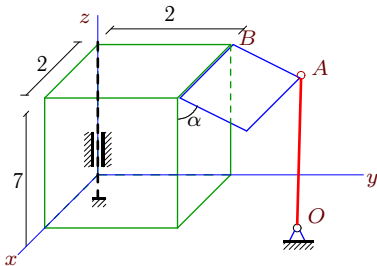
6



$\omega_y = 10 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.6$,
 $O(4, 9, 0)$.

Задача К-35.21.

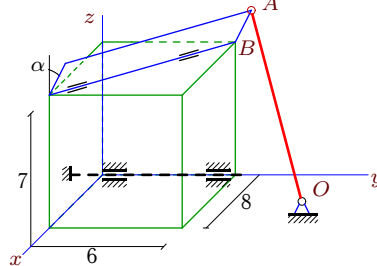
6



$\omega_z = 40 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.6$,
 $O(3, 6, 0)$.

Задача К-35.22.

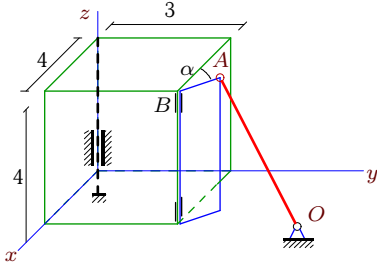
6



$\omega_y = 1045 \text{ c}^{-1}$, $AB = 5$, $\cos \alpha = 0.6$,
 $O(1, 11, 0)$.

Задача К-35.23.

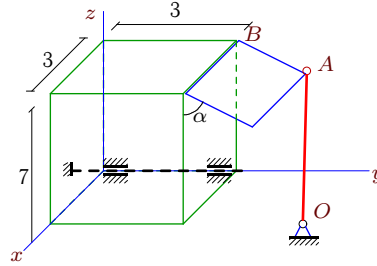
6



$\omega_z = -1 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.6$,
 $O(3, 6, 0)$.

Задача К-35.24.

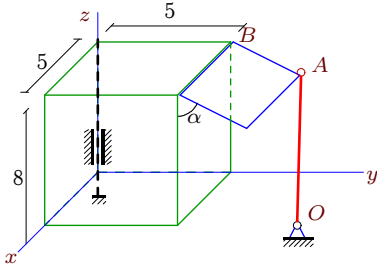
6



$\omega_y = 65 \text{ c}^{-1}$, $AB = 4$, $\cos \alpha = 0.6$,
 $O(1, 8, 0)$.

Задача К-35.25.

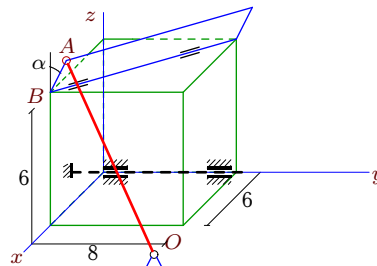
6



$\omega_z = 80 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.8$,
 $O(1, 7, 0)$.

Задача К-35.26.

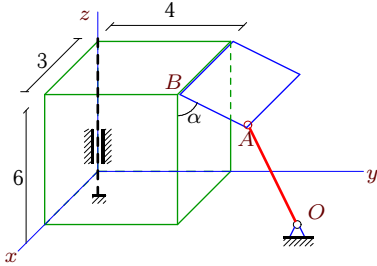
6



$\omega_y = 55 \text{ c}^{-1}$, $AB = 5$, $\cos \alpha = 0.6$,
 $O(8, 8, 0)$.

Задача К-35.27.

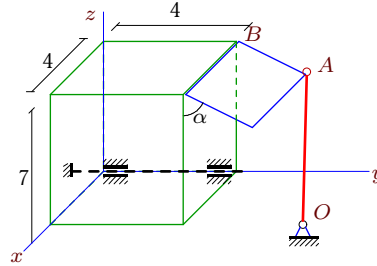
6



$\omega_z = 15 \text{ c}^{-1}$, $AB = 2$, $\cos \alpha = 0.6$,
 $O(6, 6, 0)$.

Задача К-35.28.

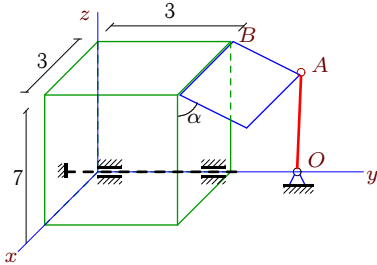
6



$\omega_y = 95 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.6$,
 $O(4, 7, 0)$.

Задача К-35.29.

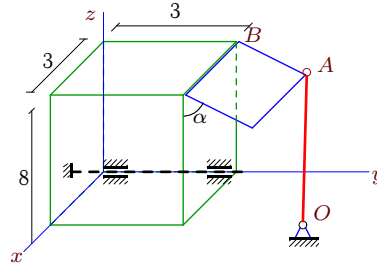
6



$\omega_y = 5 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.8$,
 $O(0, 8, 0)$.

Задача К-35.30.

6



$\omega_y = 10 \text{ c}^{-1}$, $AB = 3$, $\cos \alpha = 0.8$,
 $O(3, 7, 0)$.

К-35

Ответы.

Шарнирный механизм с цилиндрическим шарниром 23.02.2014

№	v_{Ax}	v_{Ay}	v_{Az}
1	20	-120	-126
2	-703	742	356
3	40	80	16
4	-396	583	340
5	7810	-3465	-2696
6	63	14	0
7	154	242	0
8	-18	72	79
9	15	135	154
10	0	15	6
11	56	140	55
12	23	460	325
13	-38	10	-15
14	-1584	2167	1420
15	-679	48	180
16	-792	1001	740
17	0	-15	-9
18	20	60	33
19	-156	12	40
20	52	39	12
21	-176	241	108
22	10000	-600	-1508
23	3	-4	0
24	299	69	-168
25	-544	964	423
26	255	-180	-106
27	-84	6	-52
28	494	312	36
29	23	0	-25
30	56	84	33

К-35 файл о35к6А