

Центр тяжести пространственной стержневой фигуры

Найти координаты центра тяжести пространственной фигуры, состоящей из четырех однородных стержней. Размеры даны в метрах.

Кирсанов М.Н. **Решебник. Теоретическая механика** / Под ред. А. И. Кириллова. – М.: ФИЗМАТЛИТ, 2008. — 384 с. (с.122.)

Задача S-21.1. 6

$l_1 = 10, l_2 = 10, l_3 = 20, l_4 = 10.$

Задача S-21.2. 6

$l_1 = 12, l_2 = 24, l_3 = 12, l_4 = 24.$

Задача S-21.3. 6

$l_1 = 12, l_2 = 12, l_3 = 24, l_4 = 24.$

Задача S-21.4. 6

$l_1 = 12, l_2 = 24, l_3 = 20, l_4 = 16.$

Задача S-21.5. 6

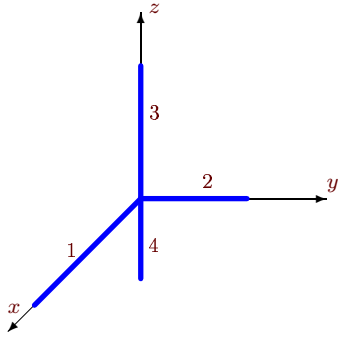
$l_1 = 8, l_2 = 12, l_3 = 8, l_4 = 4.$

Задача S-21.6. 6

$l_1 = 16, l_2 = 8, l_3 = 24, l_4 = 16.$

Задача S-21.7.

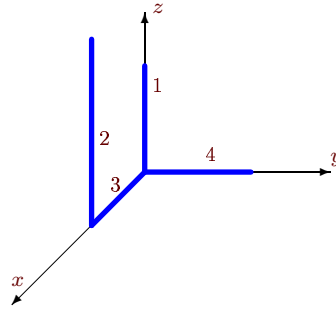
6



$$l_1 = 12, l_2 = 24, l_3 = 10, l_4 = 26.$$

Задача S-21.8.

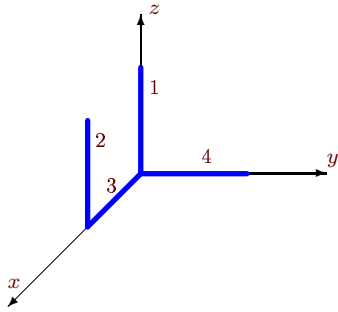
6



$$l_1 = 8, l_2 = 24, l_3 = 16, l_4 = 16.$$

Задача S-21.9.

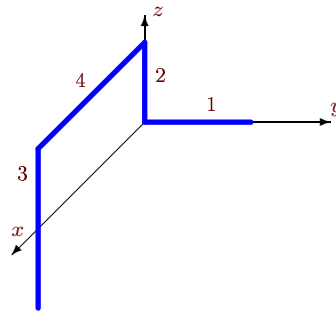
6



$$l_1 = 10, l_2 = 10, l_3 = 20, l_4 = 10.$$

Задача S-21.10.

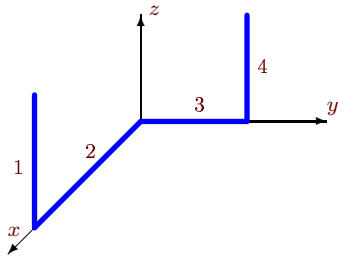
6



$$l_1 = 12, l_2 = 12, l_3 = 24, l_4 = 24.$$

Задача S-21.11.

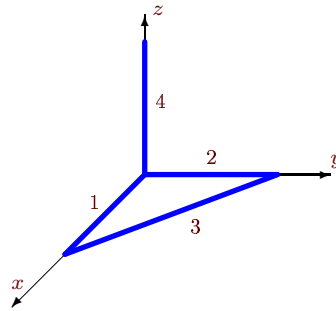
6



$$l_1 = 12, l_2 = 12, l_3 = 24, l_4 = 24.$$

Задача S-21.12.

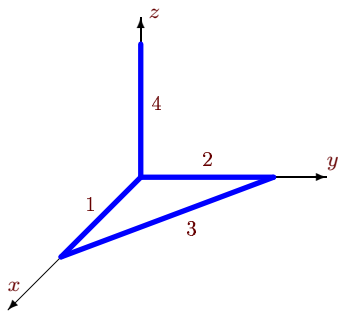
6



$$l_1 = 9, l_2 = 12, l_3 = 15, l_4 = 18.$$

Задача S-21.13.

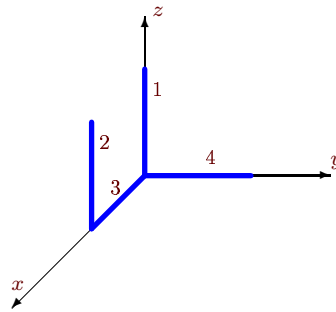
6



$$l_1 = 9, l_2 = 12, l_3 = 15, l_4 = 18.$$

Задача S-21.14.

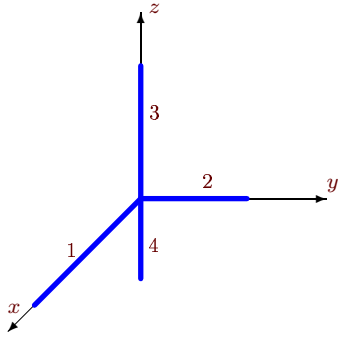
6



$$l_1 = 12, l_2 = 12, l_3 = 24, l_4 = 24.$$

Задача S-21.15.

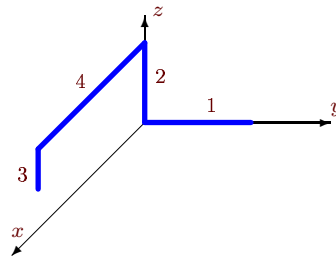
6



$$l_1 = 10, l_2 = 20, l_3 = 5, l_4 = 15.$$

Задача S-21.16.

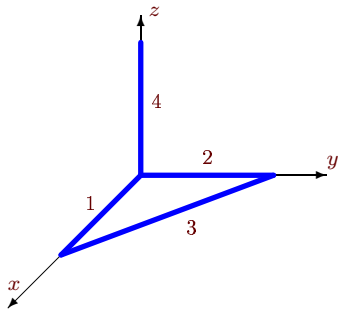
6



$$l_1 = 12, l_2 = 24, l_3 = 12, l_4 = 24.$$

Задача S-21.17.

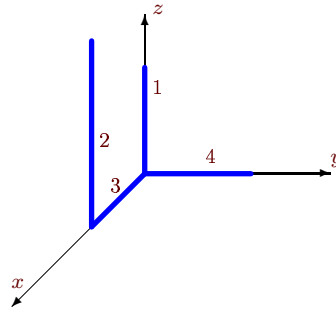
6



$$l_1 = 9, l_2 = 12, l_3 = 15, l_4 = 18.$$

Задача S-21.18.

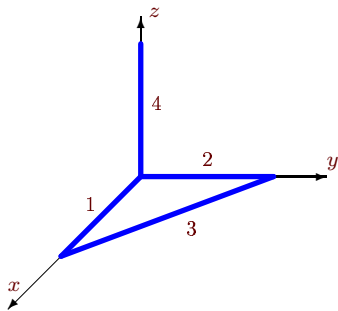
6



$$l_1 = 8, l_2 = 24, l_3 = 16, l_4 = 16.$$

Задача S-21.19.

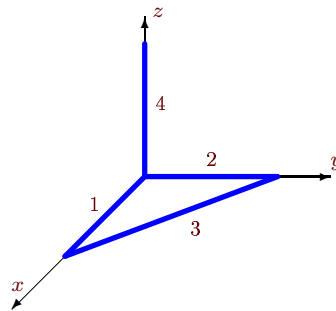
6



$$l_1 = 9, l_2 = 12, l_3 = 15, l_4 = 18.$$

Задача S-21.20.

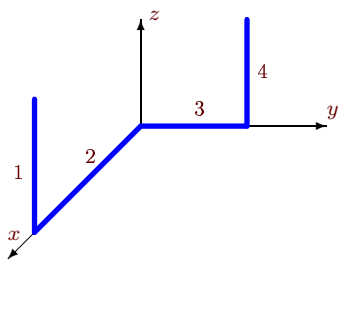
6



$$l_1 = 9, l_2 = 12, l_3 = 15, l_4 = 18.$$

Задача S-21.21.

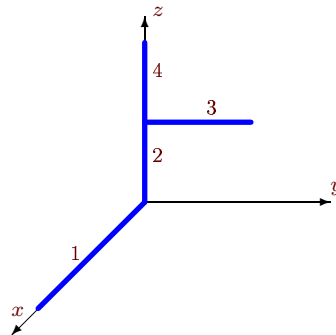
6



$$l_1 = 10, l_2 = 10, l_3 = 10, l_4 = 20.$$

Задача S-21.22.

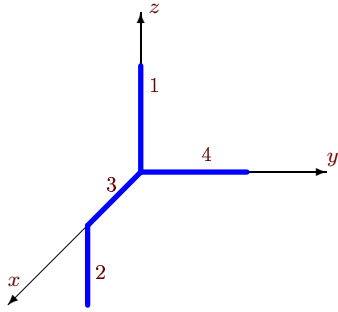
6



$$l_1 = 12, l_2 = 9, l_3 = 12, l_4 = 3.$$

Задача S-21.23.

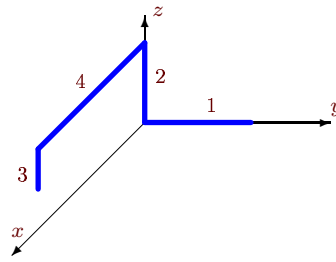
6



$$l_1 = 4, l_2 = 4, l_3 = 8, l_4 = 16.$$

Задача S-21.24.

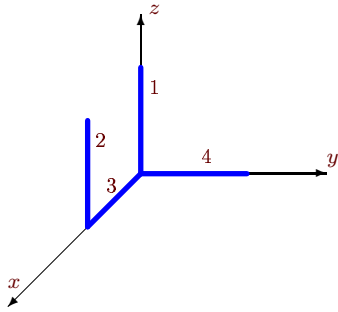
6



$$l_1 = 10, l_2 = 20, l_3 = 10, l_4 = 10.$$

Задача S-21.25.

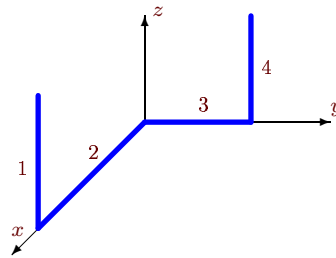
6



$$l_1 = 6, l_2 = 6, l_3 = 12, l_4 = 12.$$

Задача S-21.26.

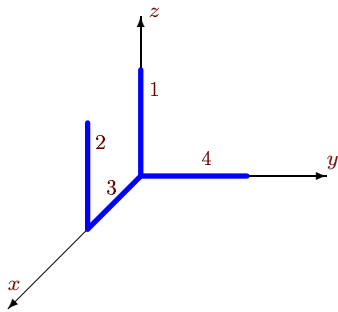
6



$$l_1 = 8, l_2 = 16, l_3 = 16, l_4 = 24.$$

Задача S-21.27.

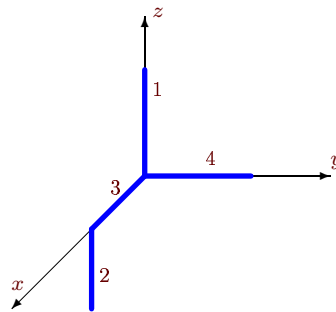
6



$$l_1 = 12, l_2 = 12, l_3 = 24, l_4 = 24.$$

Задача S-21.28.

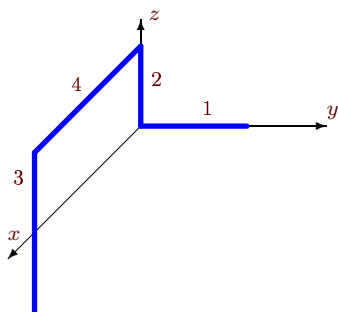
6



$$l_1 = 3, l_2 = 15, l_3 = 6, l_4 = 12.$$

Задача S-21.29.

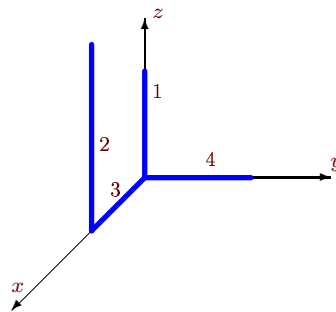
6



$$l_1 = 10, l_2 = 10, l_3 = 20, l_4 = 10.$$

Задача S-21.30.

6



$$l_1 = 8, l_2 = 24, l_3 = 16, l_4 = 16.$$

Ответы.

Центр тяжести пространственной стержневой фигуры

17.02.2015

	x_c	y_c	z_c	L
1	5	1	3	50
2	8	5	5	72
3	8	4	2	72
4	1	4	1	72
5	1	1	7	32
6	8	2	1	64
7	1	4	-4	72
8	8	2	5	64
9	8	1	2	50
10	12	1	5	72
11	3	12	5	72
12	2	3	3	54
13	2	3	3	54
14	8	4	2	72
15	1	4	-2	50
16	8	1	15	72
17	2	3	3	54
18	8	2	5	64
19	2	3	3	54
20	2	3	3	54
21	3	5	5	50
22	2	2	5	36
23	2	4	0	32
24	3	1	11	50
25	4	2	1	36
26	4	8	5	64
27	8	4	2	72
28	3	2	-3	36
29	5	1	3	50
30	8	2	5	64

S-21 файл о21s6A