

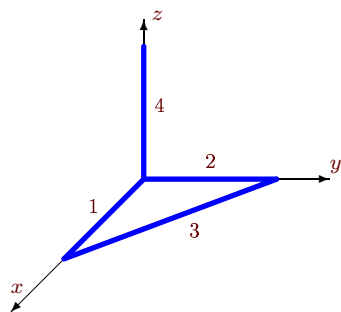
Центр тяжести пространственной стержневой фигуры

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.

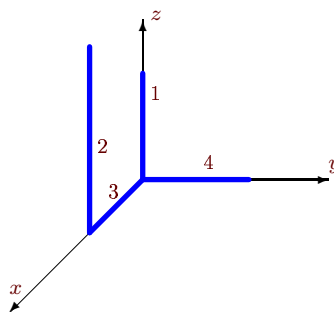
8



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

Задача S-21.2.

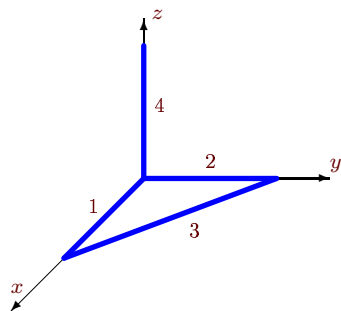
8



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

Задача S-21.3.

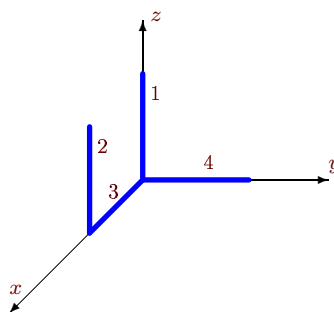
8



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

Задача S-21.4.

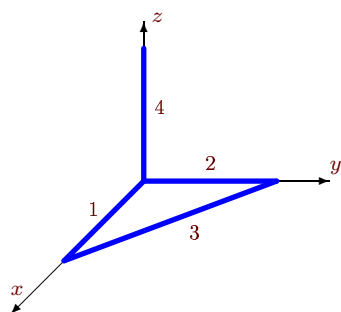
8



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

Задача S-21.5.

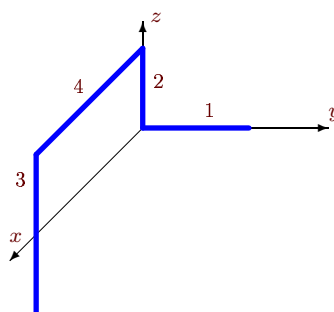
8



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

Задача S-21.6.

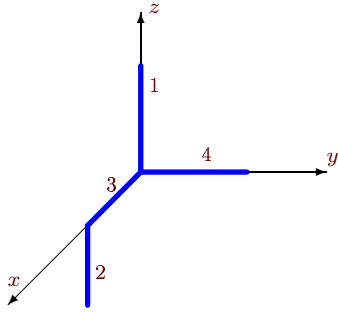
8



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

Задача S-21.7.

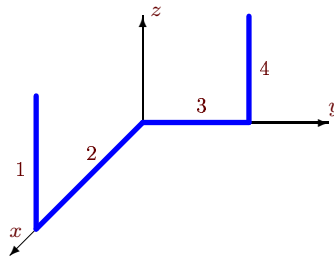
8



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

Задача S-21.8.

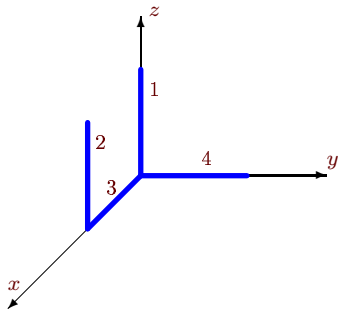
8



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

Задача S-21.9.

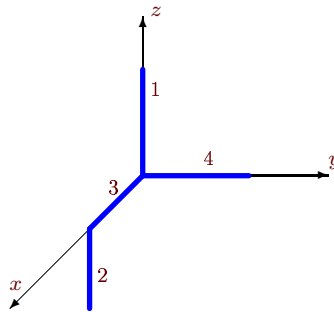
8



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

Задача S-21.10.

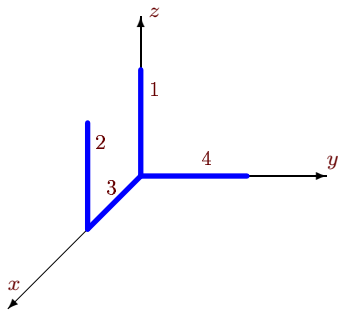
8



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

Задача S-21.11.

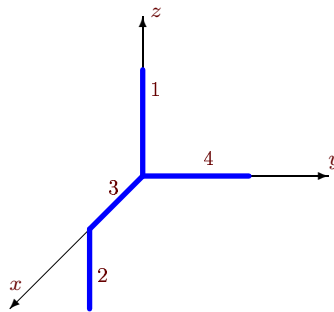
8



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

Задача S-21.12.

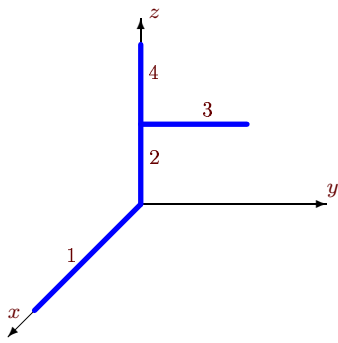
8



$$l_1 = 2, l_2 = 2, l_3 = 4, l_4 = 8.$$

Задача S-21.13.

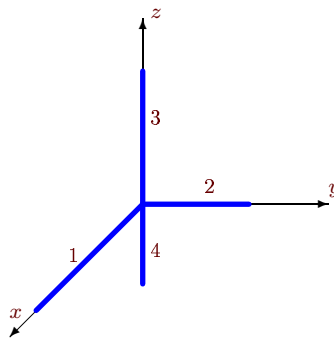
8



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

Задача S-21.14.

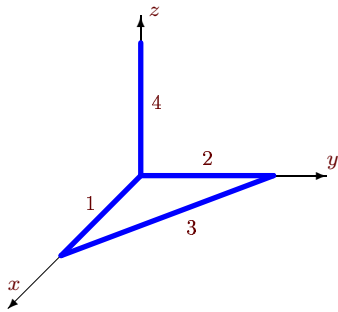
8



$$l_1 = 12, l_2 = 24, l_3 = 8, l_4 = 28.$$

Задача S-21.15.

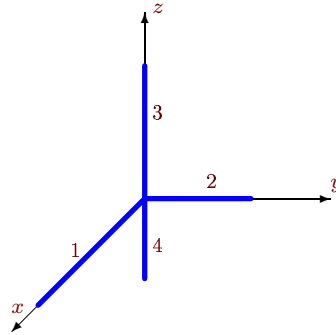
8



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

Задача S-21.16.

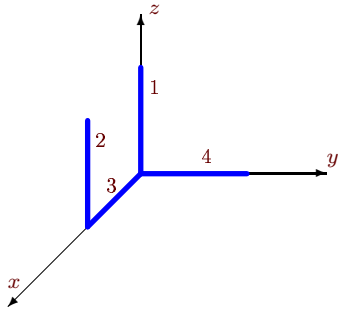
8



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

Задача S-21.17.

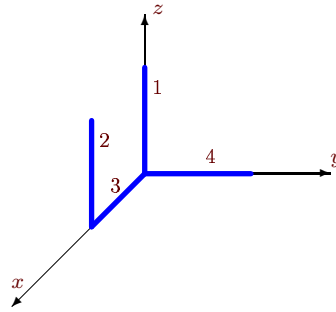
8



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

Задача S-21.18.

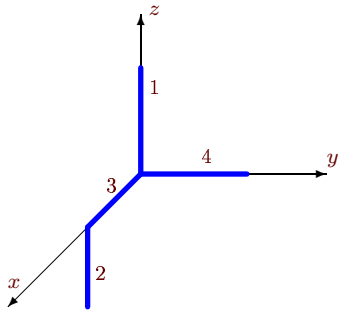
8



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

Задача S-21.19.

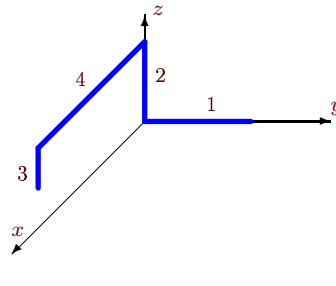
8



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

Задача S-21.20.

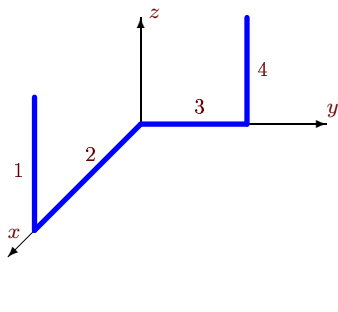
8



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

Задача S-21.21.

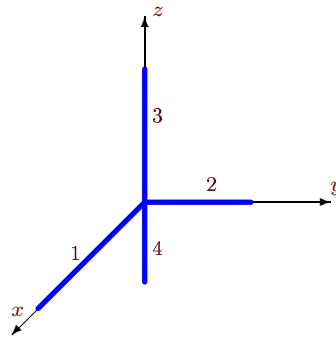
8



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

Задача S-21.22.

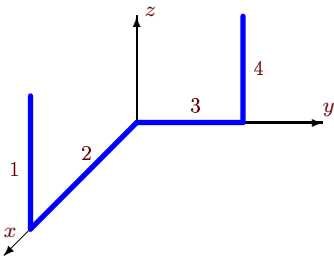
8



$$l_1 = 12, l_2 = 24, l_3 = 8, l_4 = 28.$$

Задача S-21.23.

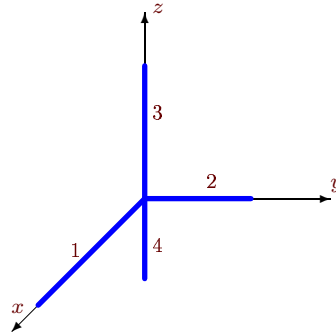
8



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

Задача S-21.24.

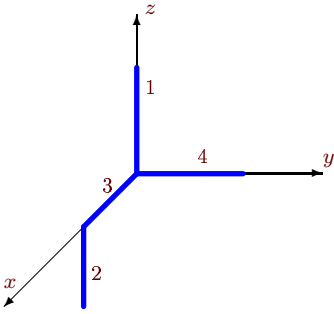
8



$$l_1 = 12, l_2 = 24, l_3 = 14, l_4 = 22.$$

Задача S-21.25.

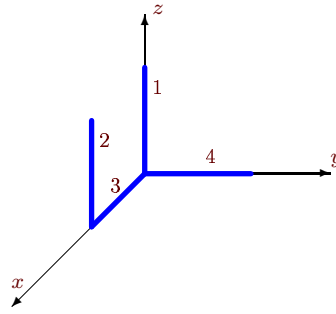
8



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

Задача S-21.26.

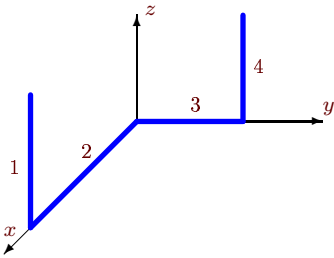
8



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

Задача S-21.27.

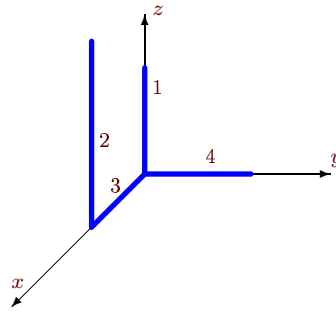
8



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

Задача S-21.28.

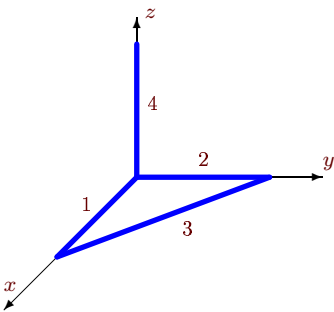
8



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

Задача S-21.29.

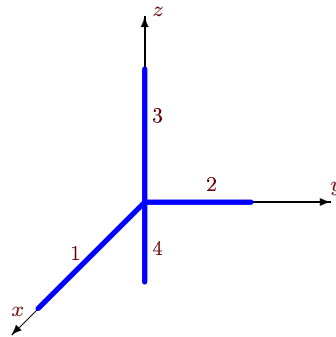
8



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

Задача S-21.30.

8



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

Ответы.

Центр тяжести пространственной стержневой фигуры

17.02.2015

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

S-21 файл о21s8A