

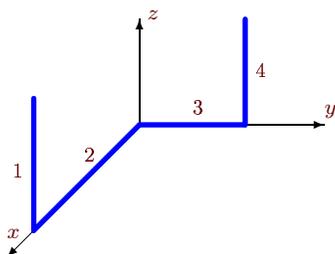
Центр тяжести пространственной стержневой фигуры

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.

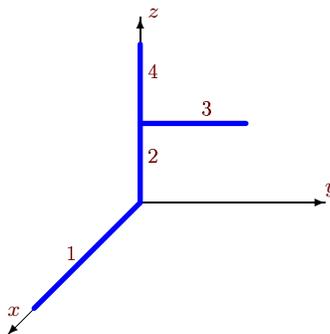
5



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

Задача S-21.2.

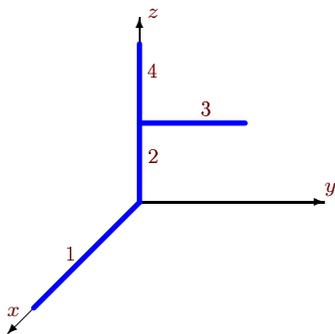
5



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

Задача S-21.3.

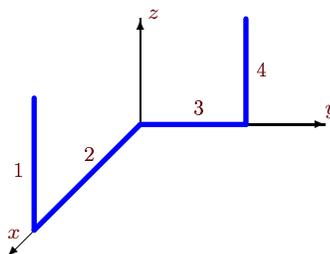
5



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

Задача S-21.4.

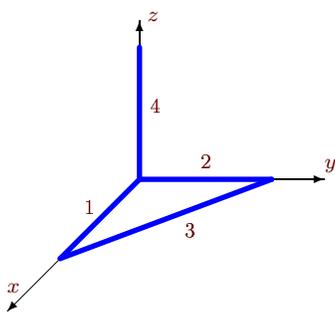
5



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

Задача S-21.5.

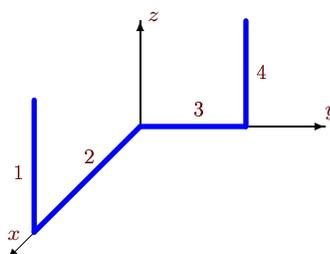
5



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

Задача S-21.6.

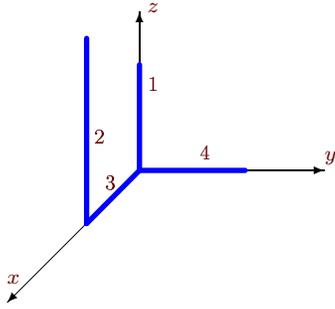
5



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

Задача S-21.7.

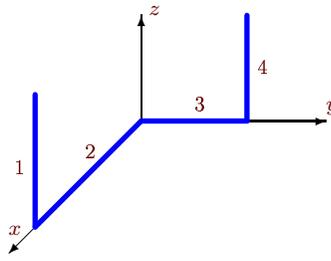
5



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

Задача S-21.8.

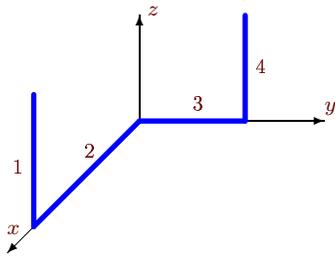
5



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

Задача S-21.9.

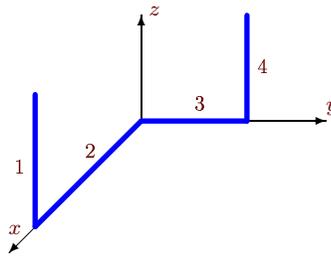
5



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

Задача S-21.10.

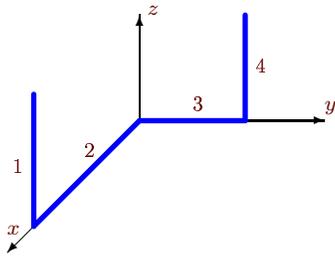
5



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

Задача S-21.11.

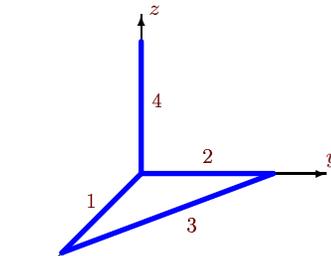
5



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

Задача S-21.12.

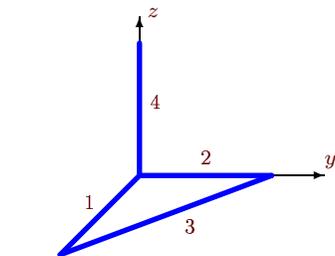
5



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

Задача S-21.13.

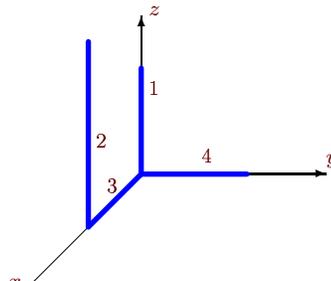
5



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

Задача S-21.14.

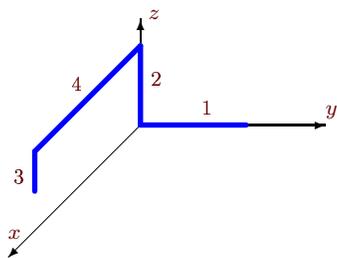
5



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

Задача S-21.15.

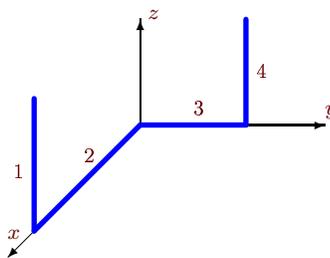
5



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

Задача S-21.16.

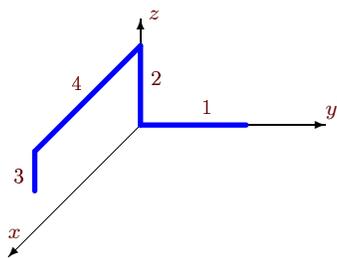
5



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

Задача S-21.17.

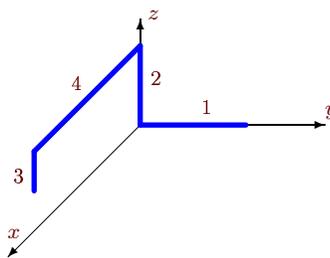
5



$$l_1 = 28, l_2 = 28, l_3 = 14, l_4 = 28.$$

Задача S-21.18.

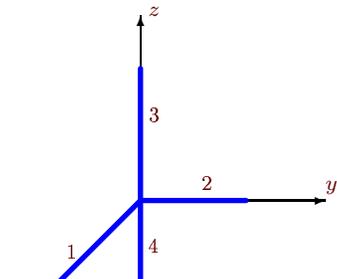
5



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

Задача S-21.19.

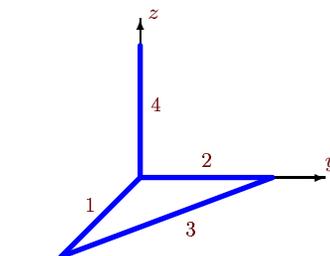
5



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

Задача S-21.20.

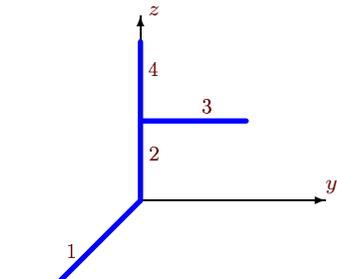
5



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

Задача S-21.21.

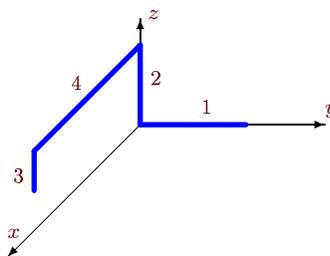
5



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

Задача S-21.22.

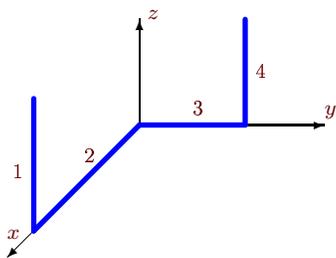
5



$$l_1 = 28, l_2 = 28, l_3 = 14, l_4 = 28.$$

Задача S-21.23.

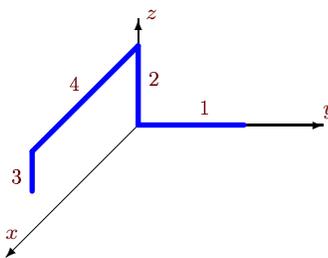
5



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

Задача S-21.24.

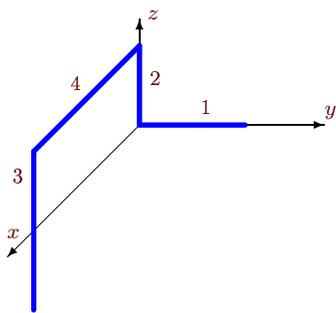
5



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

Задача S-21.25.

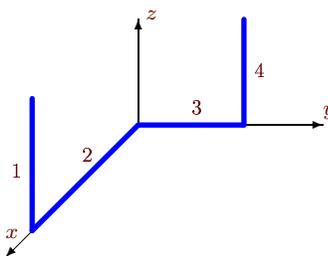
5



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

Задача S-21.26.

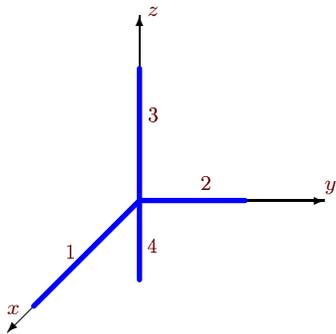
5



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

Задача S-21.27.

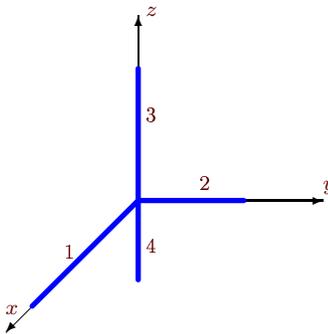
5



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

Задача S-21.28.

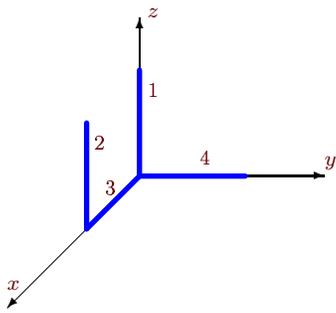
5



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

Задача S-21.29.

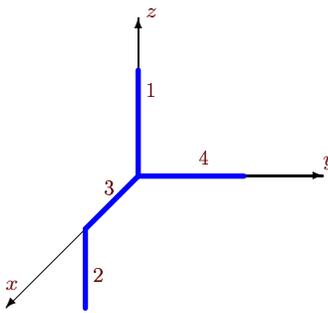
5



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

Задача S-21.30.

5



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

Ответы.

Центр тяжести пространственной стержневой фигуры

17.02.2015

	x_c	y_c	z_c	L
1	8	5	5	72
2	1	1	2	18
3	1	1	5	32
4	3	5	5	50
5	2	3	3	54
6	8	5	5	72
7	8	2	5	64
8	3	12	5	72
9	3	12	5	72
10	5	3	5	50
11	4	8	5	64
12	2	3	3	54
13	2	3	3	54
14	5	1	5	50
15	3	1	11	50
16	3	12	5	72
17	8	4	15	98
18	3	1	11	50
19	1	4	-4	72
20	2	3	3	54
21	1	1	7	32
22	8	4	15	98
23	4	8	5	64
24	8	1	15	72
25	12	1	5	72
26	8	5	5	72
27	1	4	2	50
28	1	4	-4	72
29	4	2	1	36
30	3	2	-3	36

S-21 файл о21s5A