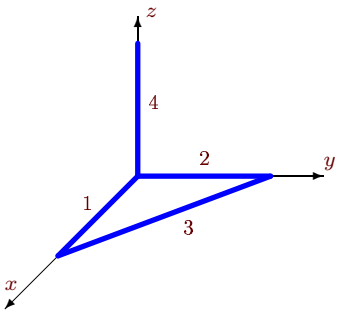
Центр тяжести пространственной стержневой фигуры

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

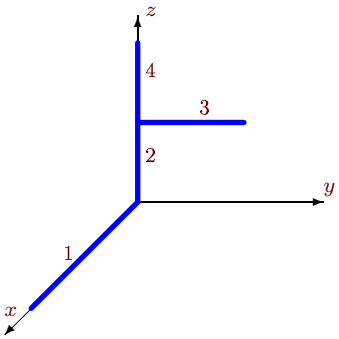
Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.: ФИЗМАТЛИТ, 2008. — 384 с. (с.122.)

Задача S-21.1.



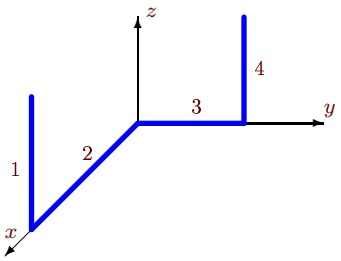
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.2.



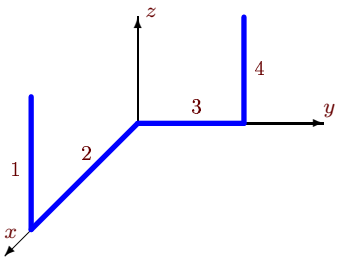
$l_1 = 6$, $l_2 = 3$, $l_3 = 6$, $l_4 = 3$.

Задача S-21.3.



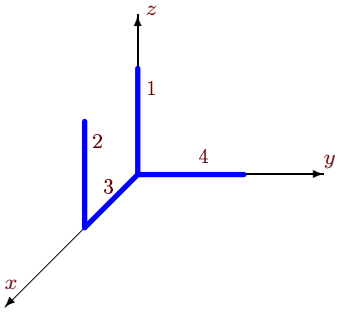
$l_1 = 20$, $l_2 = 10$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.4.



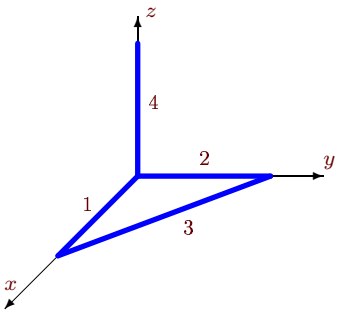
$l_1 = 8$, $l_2 = 16$, $l_3 = 16$, $l_4 = 24$.

Задача S-21.5.



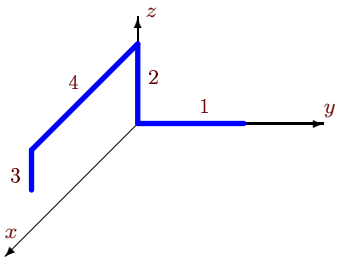
$l_1 = 10$, $l_2 = 10$, $l_3 = 20$, $l_4 = 10$.

Задача S-21.6.



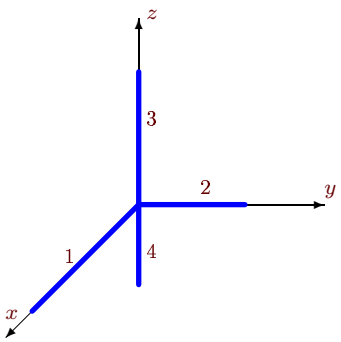
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.7.



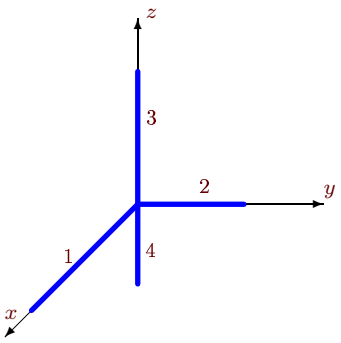
$l_1 = 12$, $l_2 = 24$, $l_3 = 12$, $l_4 = 24$.

Задача S-21.8.



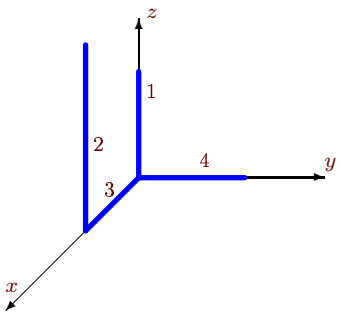
$l_1 = 10$, $l_2 = 20$, $l_3 = 15$, $l_4 = 5$.

Задача S-21.9.



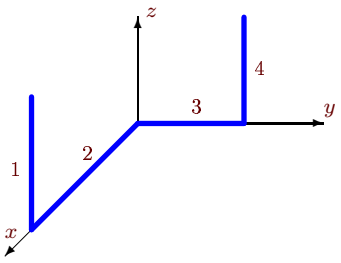
$l_1 = 10$, $l_2 = 20$, $l_3 = 15$, $l_4 = 5$.

Задача S-21.10.



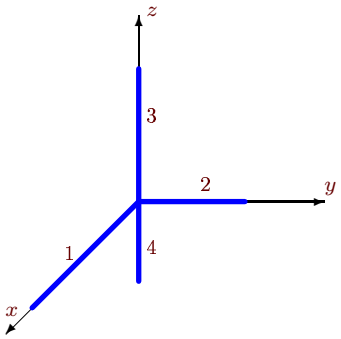
$l_1 = 10$, $l_2 = 20$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.11.



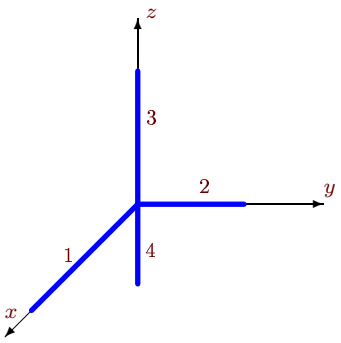
$l_1 = 20$, $l_2 = 10$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.12.



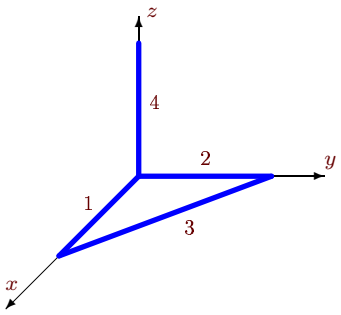
$l_1 = 12$, $l_2 = 24$, $l_3 = 8$, $l_4 = 28$.

Задача S-21.13.



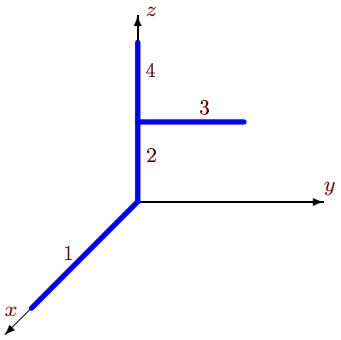
$l_1 = 10$, $l_2 = 20$, $l_3 = 5$, $l_4 = 15$.

Задача S-21.14.



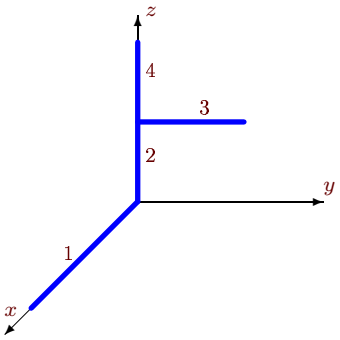
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.15. 2



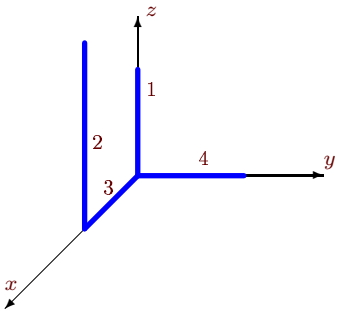
$l_1 = 12$, $l_2 = 9$, $l_3 = 12$, $l_4 = 3$.

Задача S-21.16. 2



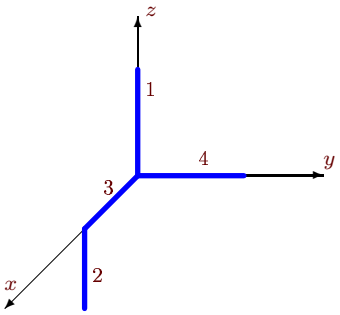
$l_1 = 12$, $l_2 = 9$, $l_3 = 12$, $l_4 = 3$.

Задача S-21.17. 2



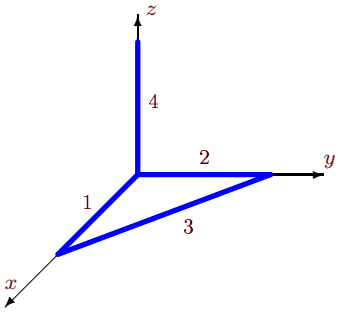
$l_1 = 8$, $l_2 = 24$, $l_3 = 16$, $l_4 = 16$.

Задача S-21.18. 2



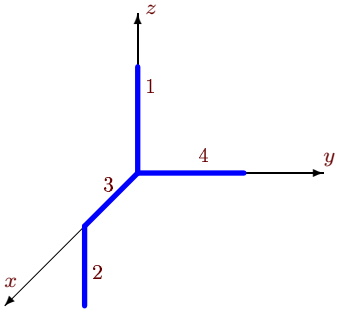
$l_1 = 3$, $l_2 = 15$, $l_3 = 6$, $l_4 = 12$.

Задача S-21.19. 2



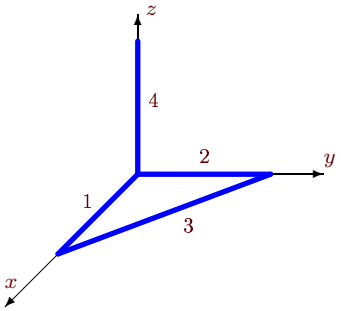
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.20. 2



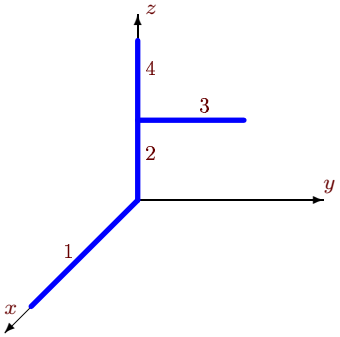
$l_1 = 2$, $l_2 = 2$, $l_3 = 4$, $l_4 = 8$.

Задача S-21.21. 2



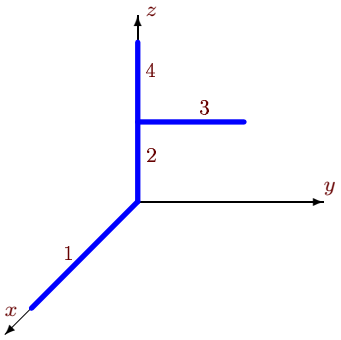
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.22. 2



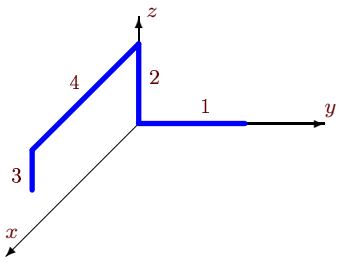
$l_1 = 8$, $l_2 = 12$, $l_3 = 8$, $l_4 = 4$.

Задача S-21.23. 2



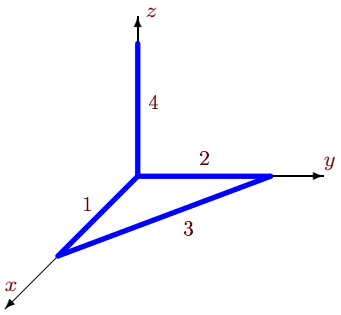
$l_1 = 12$, $l_2 = 9$, $l_3 = 12$, $l_4 = 3$.

Задача S-21.24. 2



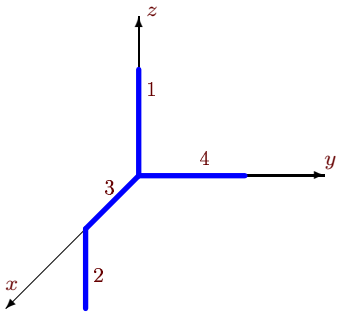
$l_1 = 10$, $l_2 = 20$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.25. 2



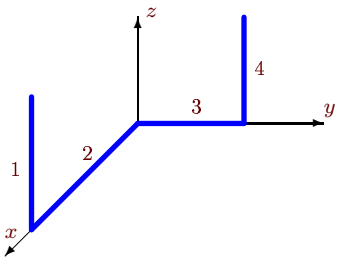
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.26. 2



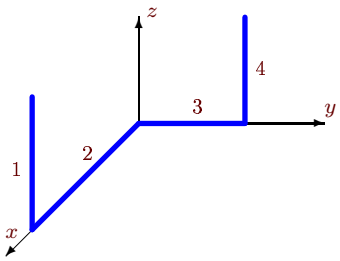
$l_1 = 12$, $l_2 = 4$, $l_3 = 8$, $l_4 = 8$.

Задача S-21.27. 2



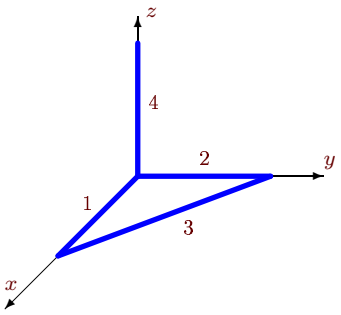
$l_1 = 8$, $l_2 = 16$, $l_3 = 16$, $l_4 = 24$.

Задача S-21.28. 2



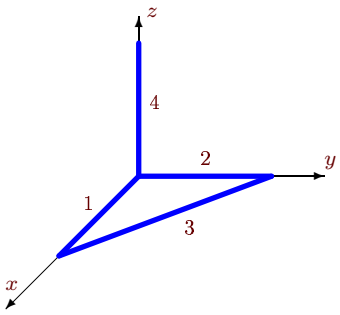
$l_1 = 10$, $l_2 = 10$, $l_3 = 10$, $l_4 = 20$.

Задача S-21.29. 2



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

Задача S-21.30. 2



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

Ответы.

Центр тяжести пространственной стержневой фигуры

17.02.2015

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

S-21 файл o21s2A