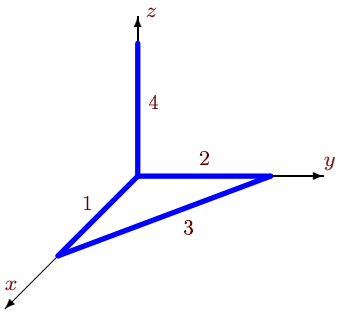
Центр тяжести пространственной стержневой фигуры

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.

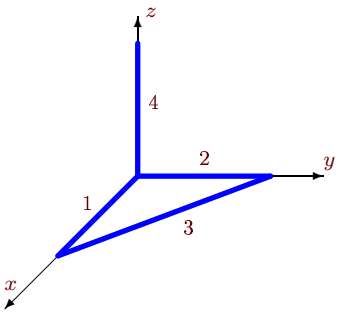
g



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

Задача S-21.2.

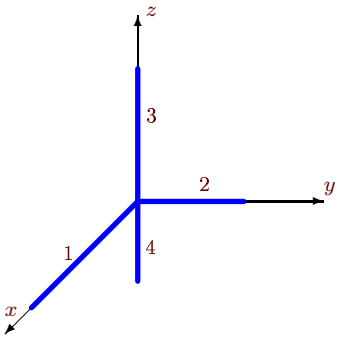
g



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

Задача S-21.3.

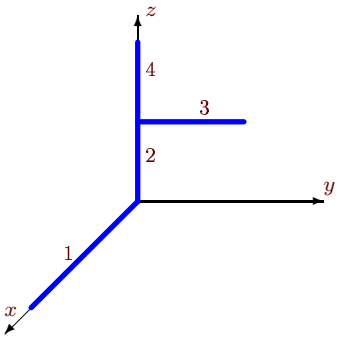
g



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

Задача S-21.4.

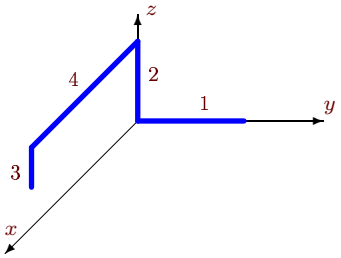
g



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

Задача S-21.5.

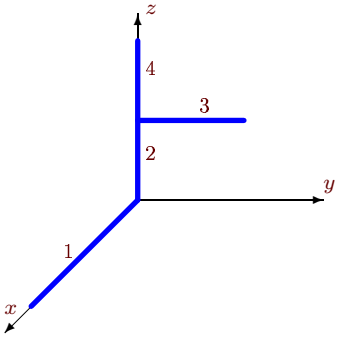
g



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

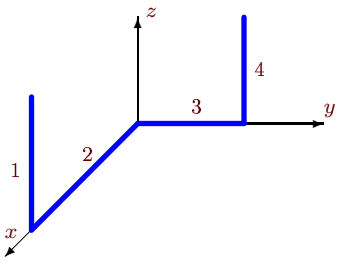
Задача S-21.6.

g



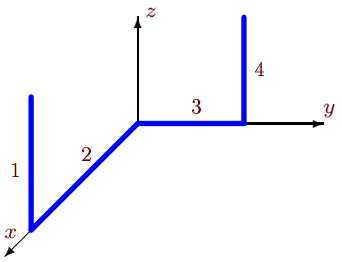
$l_1 = 12$, $l_2 = 3$, $l_3 = 12$, $l_4 = 9$.

Задача S-21.7. 9



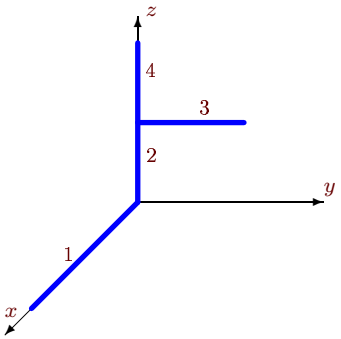
$l_1 = 8$, $l_2 = 16$, $l_3 = 16$, $l_4 = 24$.

Задача S-21.8. 9



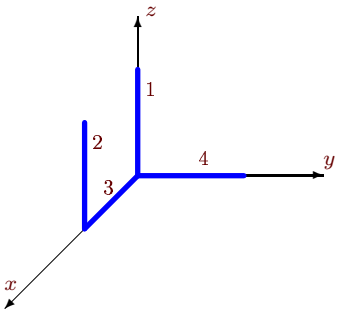
$l_1 = 12$, $l_2 = 24$, $l_3 = 12$, $l_4 = 24$.

Задача S-21.9. 9



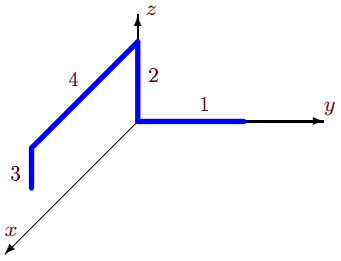
$l_1 = 6$, $l_2 = 3$, $l_3 = 6$, $l_4 = 3$.

Задача S-21.10. 9



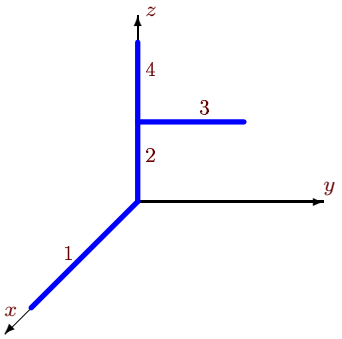
$l_1 = 6$, $l_2 = 6$, $l_3 = 12$, $l_4 = 12$.

Задача S-21.11. 9



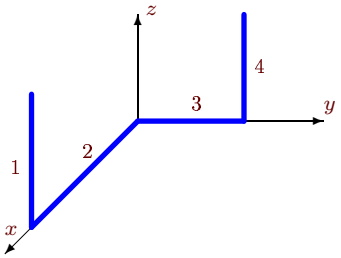
$l_1 = 28$, $l_2 = 28$, $l_3 = 14$, $l_4 = 28$.

Задача S-21.12. 9



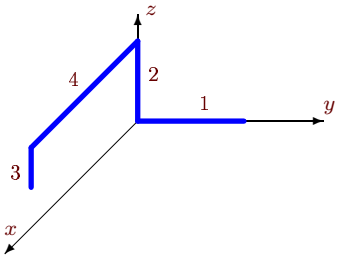
$l_1 = 8$, $l_2 = 4$, $l_3 = 8$, $l_4 = 12$.

Задача S-21.13. 9



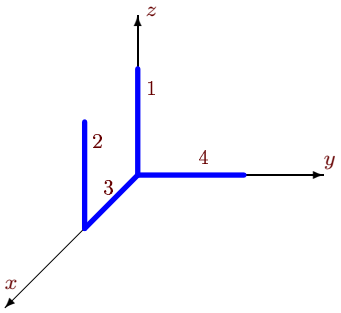
$l_1 = 12$, $l_2 = 12$, $l_3 = 24$, $l_4 = 24$.

Задача S-21.14. 9



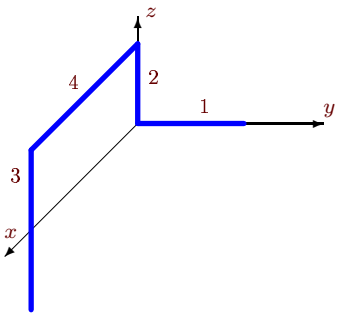
$l_1 = 12$, $l_2 = 24$, $l_3 = 12$, $l_4 = 24$.

Задача S-21.15. 9



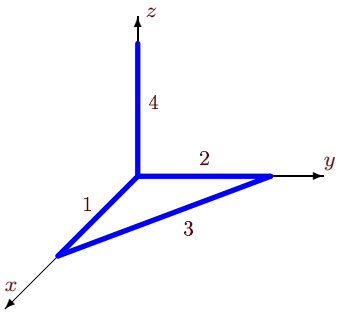
$l_1 = 12$, $l_2 = 12$, $l_3 = 24$, $l_4 = 24$.

Задача S-21.16. 9



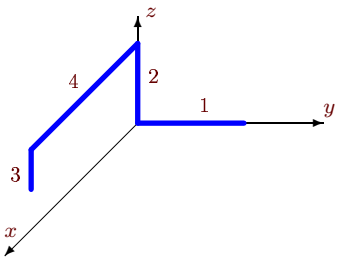
$l_1 = 12$, $l_2 = 12$, $l_3 = 24$, $l_4 = 24$.

Задача S-21.17. 9



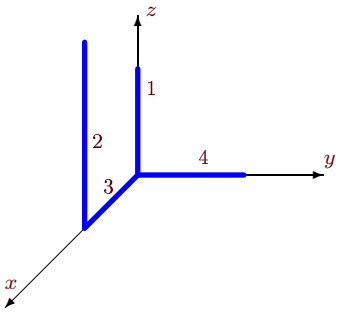
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.18. 9



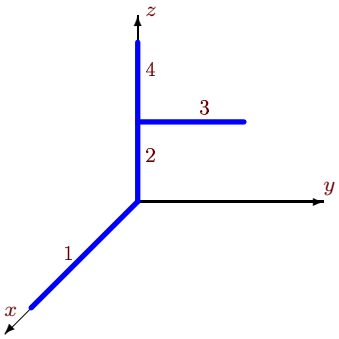
$l_1 = 10$, $l_2 = 20$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.19. 9



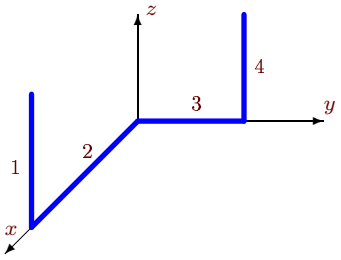
$l_1 = 8$, $l_2 = 24$, $l_3 = 16$, $l_4 = 16$.

Задача S-21.20. 9



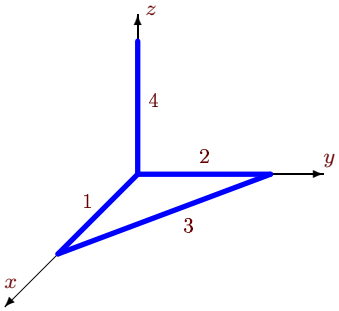
$l_1 = 12$, $l_2 = 9$, $l_3 = 12$, $l_4 = 3$.

Задача S-21.21. 9



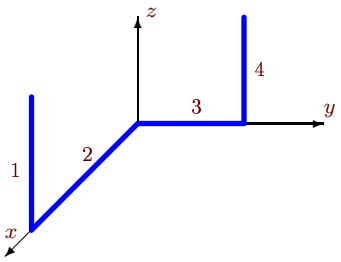
$l_1 = 20$, $l_2 = 10$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.22. 9



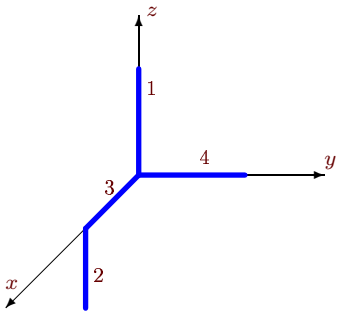
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.23. 9



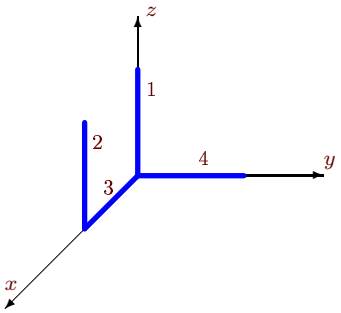
$l_1 = 12$, $l_2 = 24$, $l_3 = 12$, $l_4 = 24$.

Задача S-21.24. 9



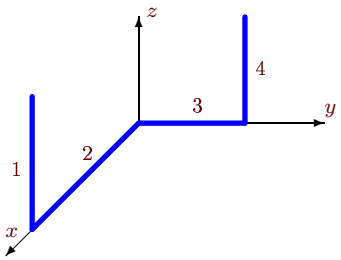
$l_1 = 20$, $l_2 = 20$, $l_3 = 8$, $l_4 = 16$.

Задача S-21.25. 9



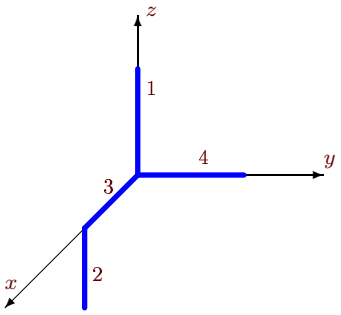
$l_1 = 12$, $l_2 = 12$, $l_3 = 24$, $l_4 = 24$.

Задача S-21.26. 9



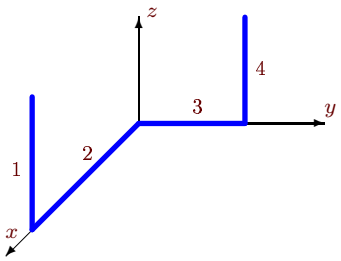
$l_1 = 20$, $l_2 = 10$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.27. 9



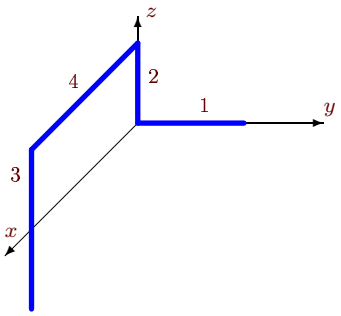
$l_1 = 12$, $l_2 = 4$, $l_3 = 8$, $l_4 = 8$.

Задача S-21.28. 9



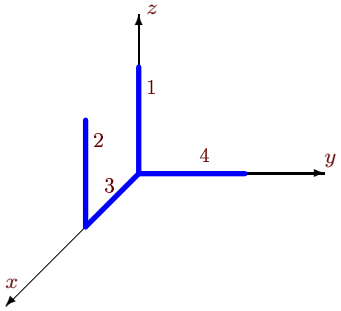
$l_1 = 20$, $l_2 = 10$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.29. 9



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

Задача S-21.30. 9



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

Ответы.

Центр тяжести пространственной стержневой фигуры

17.02.2015

	x_c	y_c	z_c	L
1	2	3	3	54
2	2	3	3	54
3	1	4	1	72
4	4	1	6	50
5	8	4	15	98
6	2	2	3	36
7	4	8	5	64
8	8	5	5	72
9	1	1	2	18
10	4	2	1	36
11	8	4	15	98
12	1	1	5	32
13	3	12	5	72
14	8	1	15	72
15	8	4	2	72
16	12	1	5	72
17	2	3	3	54
18	3	1	11	50
19	8	2	5	64
20	2	2	5	36
21	5	3	5	50
22	2	3	3	54
23	8	5	5	72
24	3	2	0	64
25	8	4	2	72
26	5	3	5	50
27	2	1	2	32
28	5	3	5	50
29	12	1	5	72
30	4	2	1	36

S-21 файл o21s9A