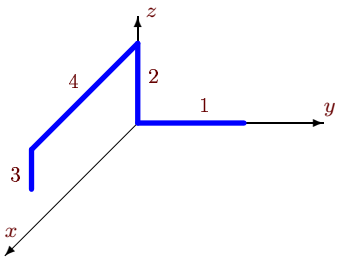
Центр тяжести пространственной стержневой фигуры

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.

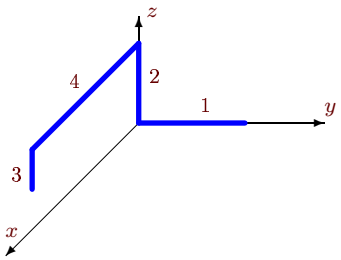
10



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

Задача S-21.2.

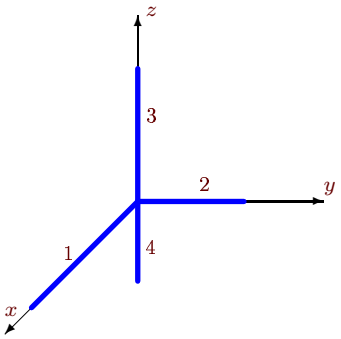
10



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

Задача S-21.3.

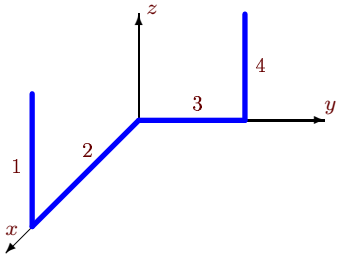
10



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

Задача S-21.4.

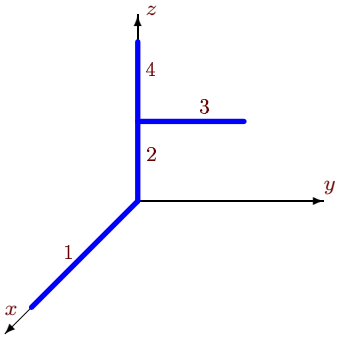
10



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

Задача S-21.5.

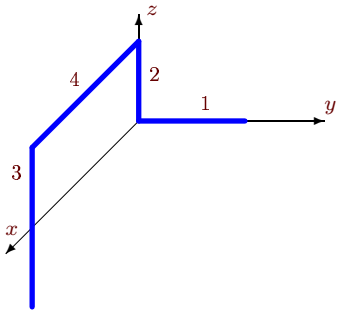
10



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

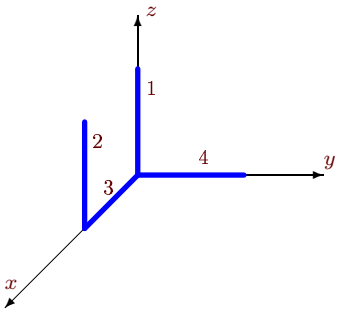
Задача S-21.6.

10



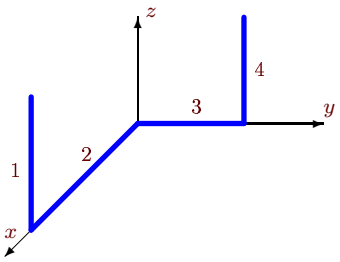
$l_1 = 10$, $l_2 = 10$, $l_3 = 20$, $l_4 = 10$.

Задача S-21.7. *10*



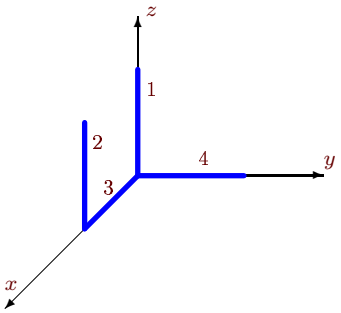
$l_1 = 10$, $l_2 = 10$, $l_3 = 20$, $l_4 = 10$.

Задача S-21.8. *10*



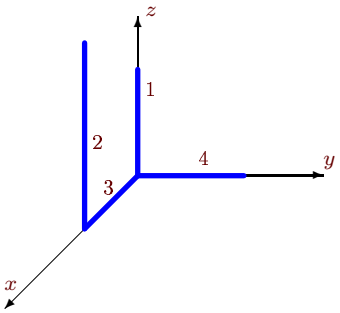
$l_1 = 12$, $l_2 = 12$, $l_3 = 24$, $l_4 = 24$.

Задача S-21.9. *10*



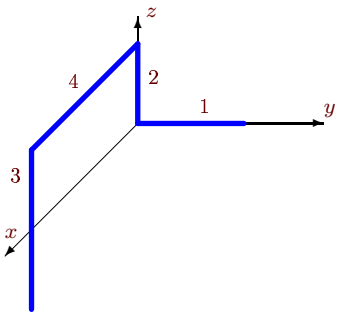
$l_1 = 10$, $l_2 = 10$, $l_3 = 20$, $l_4 = 10$.

Задача S-21.10. *10*



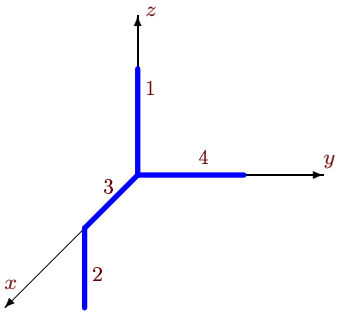
$l_1 = 10$, $l_2 = 20$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.11. *10*



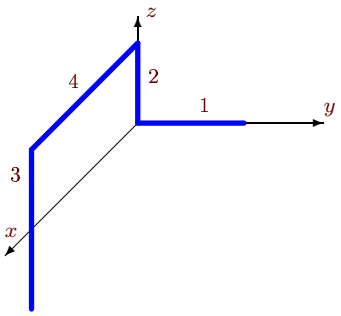
$l_1 = 10$, $l_2 = 10$, $l_3 = 20$, $l_4 = 10$.

Задача S-21.12. *10*



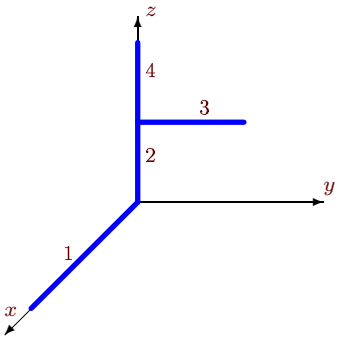
$l_1 = 12$, $l_2 = 4$, $l_3 = 8$, $l_4 = 8$.

Задача S-21.13. *10*



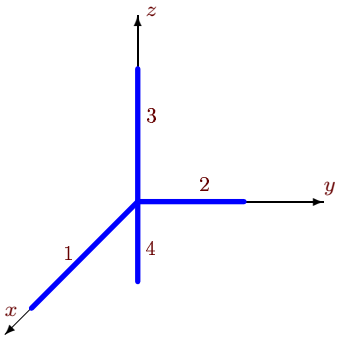
$l_1 = 10$, $l_2 = 10$, $l_3 = 20$, $l_4 = 10$.

Задача S-21.14. *10*



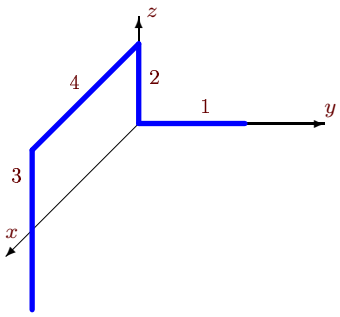
$l_1 = 8$, $l_2 = 12$, $l_3 = 8$, $l_4 = 4$.

Задача S-21.15. *10*



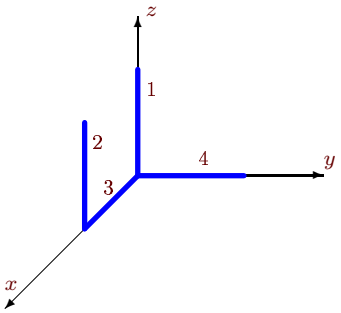
$l_1 = 12$, $l_2 = 24$, $l_3 = 20$, $l_4 = 16$.

Задача S-21.16. *10*



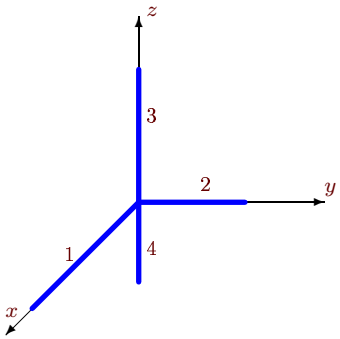
$l_1 = 10$, $l_2 = 10$, $l_3 = 20$, $l_4 = 10$.

Задача S-21.17. *10*



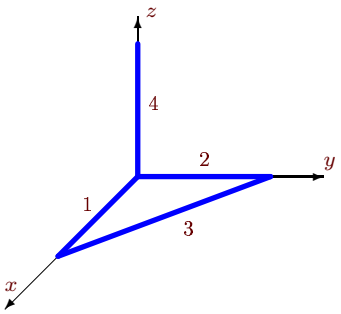
$l_1 = 10$, $l_2 = 10$, $l_3 = 10$, $l_4 = 20$.

Задача S-21.18. *10*



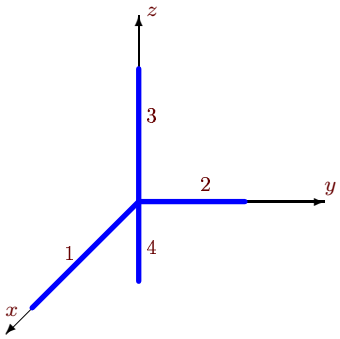
$l_1 = 12$, $l_2 = 24$, $l_3 = 10$, $l_4 = 26$.

Задача S-21.19. *10*



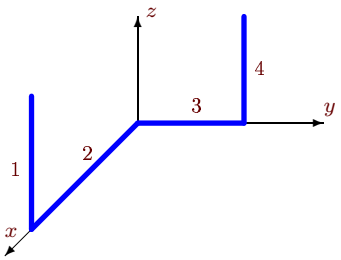
$l_1 = 9$, $l_2 = 12$, $l_3 = 15$, $l_4 = 18$.

Задача S-21.20. *10*



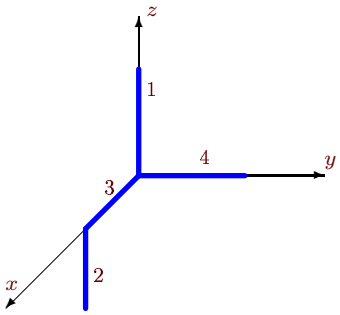
$l_1 = 12$, $l_2 = 24$, $l_3 = 20$, $l_4 = 16$.

Задача S-21.21. *10*



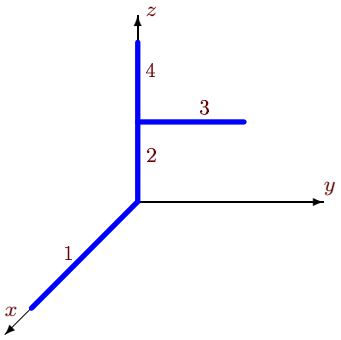
$l_1 = 20$, $l_2 = 10$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.22. *10*



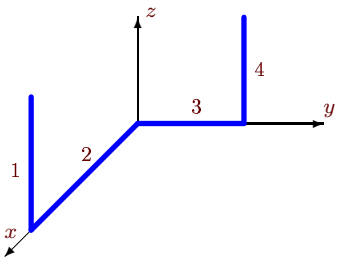
$l_1 = 3$, $l_2 = 15$, $l_3 = 6$, $l_4 = 12$.

Задача S-21.23. *10*



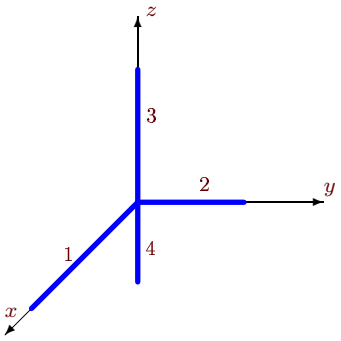
$l_1 = 12$, $l_2 = 9$, $l_3 = 12$, $l_4 = 3$.

Задача S-21.24. *10*



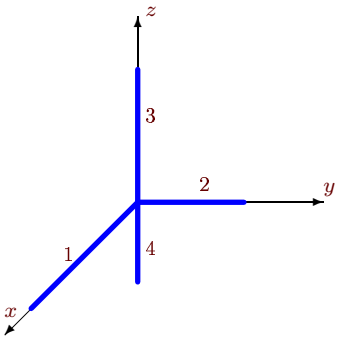
$l_1 = 20$, $l_2 = 10$, $l_3 = 10$, $l_4 = 10$.

Задача S-21.25. *10*



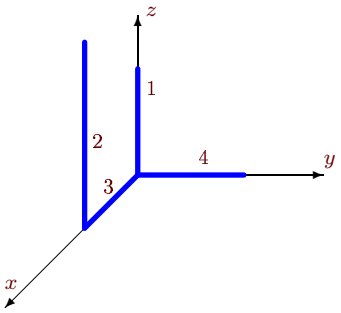
$l_1 = 12$, $l_2 = 24$, $l_3 = 10$, $l_4 = 26$.

Задача S-21.26. *10*



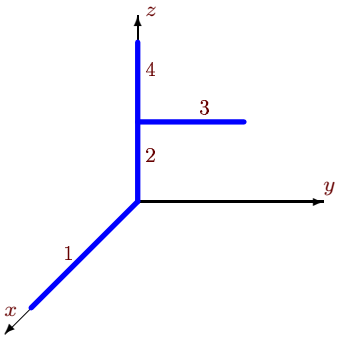
$l_1 = 10$, $l_2 = 20$, $l_3 = 5$, $l_4 = 15$.

Задача S-21.27. *10*



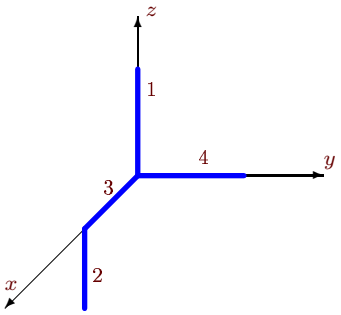
$l_1 = 8$, $l_2 = 24$, $l_3 = 16$, $l_4 = 16$.

Задача S-21.28. *10*



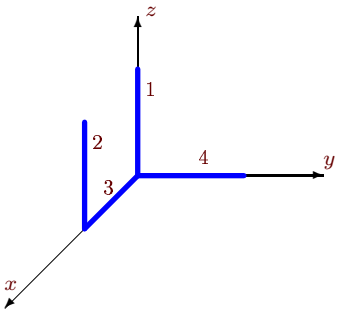
$l_1 = 12$, $l_2 = 3$, $l_3 = 12$, $l_4 = 9$.

Задача S-21.29. *10*



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

Задача S-21.30. *10*



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

Ответы.

Центр тяжести пространственной стержневой фигуры

17.02.2015

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

S-21 файл o21s10A