

Центр тяжести пространственной стержневой фигуры

Найти координаты центра тяжести пространственной фигуры, состоящей из шести 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 21.1. 4

$a = 2,$
 $b = 3,$
 $c = 4,$
 $d = 3.$

Задача 21.2. 4

$a = 4,$
 $b = 6,$
 $c = 5,$
 $d = 3.$

Задача 21.3. 4

$a = 6,$
 $b = 5,$
 $c = 4,$
 $d = 3.$

Задача 21.4. 4

$a = 3,$
 $b = 4,$
 $c = 3,$
 $d = 1.$

Задача 21.5. 4

$a = 7,$
 $b = 6,$
 $c = 5,$
 $d = 3.$

Задача 21.6. 4

$a = 3,$
 $b = 4,$
 $c = 3,$
 $d = 1.$

Задача 21.7. 4

$a = 7,$
 $b = 6,$
 $c = 5,$
 $d = 4.$

Задача 21.8. 4

$a = 5,$
 $b = 4,$
 $c = 3,$
 $d = 2.$

Задача 21.9. 4

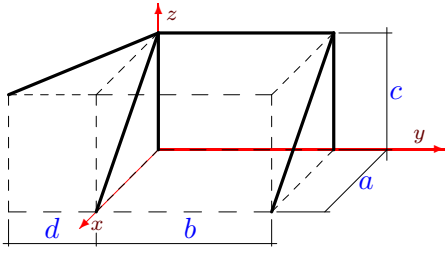
$a = 5,$
 $b = 4,$
 $c = 3,$
 $d = 1.$

Задача 21.10. 4

$a = 6,$
 $b = 5,$
 $c = 4,$
 $d = 3.$

Задача 21.11.

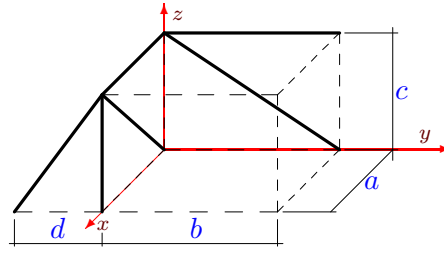
4



$$\begin{aligned} a &= 5, \\ b &= 4, \\ c &= 3, \\ d &= 1. \end{aligned}$$

Задача 21.12.

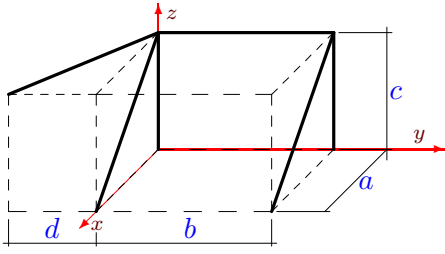
4



$$\begin{aligned} a &= 4, \\ b &= 6, \\ c &= 5, \\ d &= 4. \end{aligned}$$

Задача 21.13.

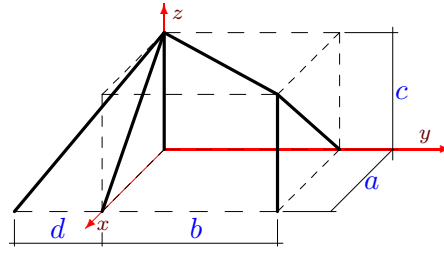
4



$$\begin{aligned} a &= 6, \\ b &= 5, \\ c &= 4, \\ d &= 2. \end{aligned}$$

Задача 21.14.

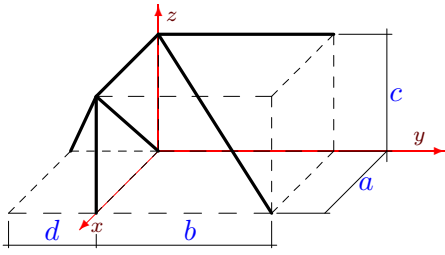
4



$$\begin{aligned} a &= 4, \\ b &= 6, \\ c &= 5, \\ d &= 3. \end{aligned}$$

Задача 21.15.

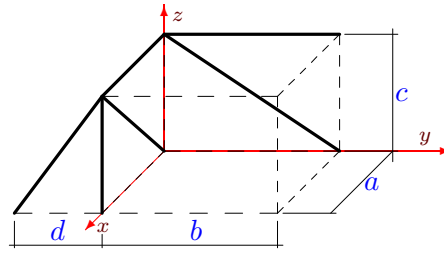
4



$$\begin{aligned} a &= 4, \\ b &= 6, \\ c &= 5, \\ d &= 4. \end{aligned}$$

Задача 21.16.

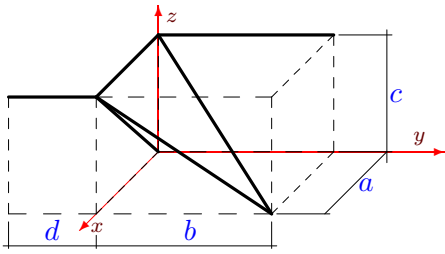
4



$$\begin{aligned} a &= 6, \\ b &= 5, \\ c &= 4, \\ d &= 3. \end{aligned}$$

Задача 21.17.

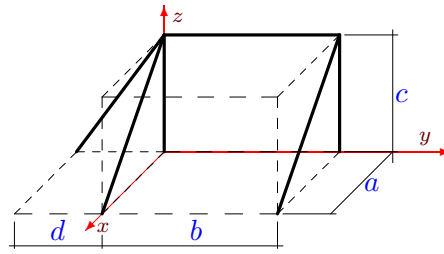
4



$$\begin{aligned} a &= 3, \\ b &= 4, \\ c &= 3, \\ d &= 2. \end{aligned}$$

Задача 21.18.

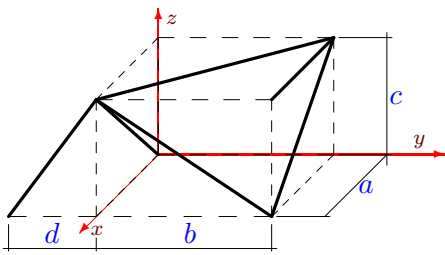
4



$$\begin{aligned} a &= 5, \\ b &= 4, \\ c &= 3, \\ d &= 1. \end{aligned}$$

Задача 21.19.

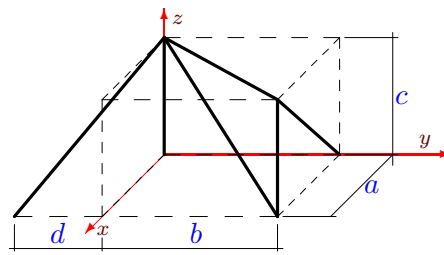
4



$$\begin{aligned} a &= 3, \\ b &= 4, \\ c &= 3, \\ d &= 2. \end{aligned}$$

Задача 21.20.

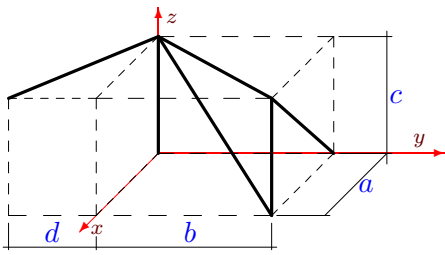
4



$$\begin{aligned} a &= 4, \\ b &= 6, \\ c &= 5, \\ d &= 3. \end{aligned}$$

Задача 21.21.

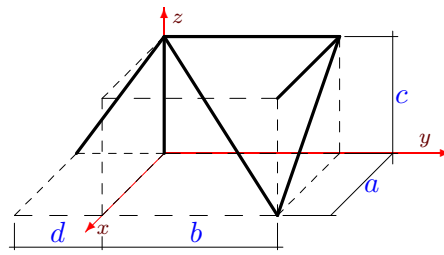
4



$$\begin{aligned} a &= 7, \\ b &= 6, \\ c &= 5, \\ d &= 3. \end{aligned}$$

Задача 21.22.

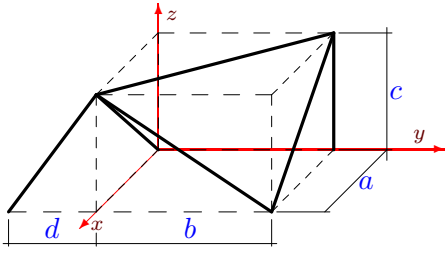
4



$$\begin{aligned} a &= 4, \\ b &= 6, \\ c &= 5, \\ d &= 3. \end{aligned}$$

Задача 21.23.

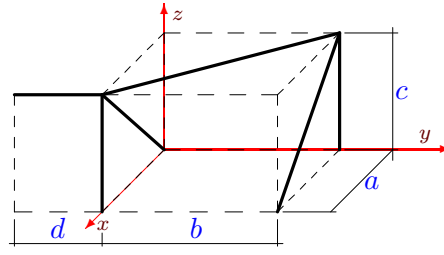
4



$$\begin{aligned} a &= 5, \\ b &= 4, \\ c &= 3, \\ d &= 2. \end{aligned}$$

Задача 21.24.

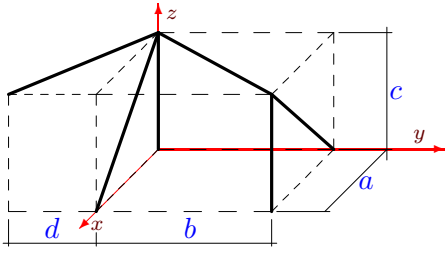
4



$$\begin{aligned} a &= 7, \\ b &= 6, \\ c &= 5, \\ d &= 4. \end{aligned}$$

Задача 21.25.

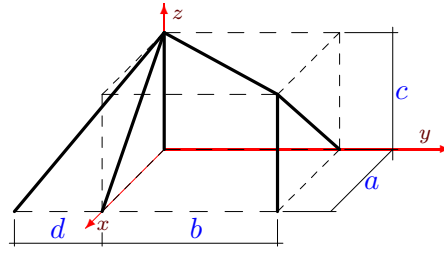
4



$$\begin{aligned} a &= 6, \\ b &= 5, \\ c &= 4, \\ d &= 2. \end{aligned}$$

Задача 21.26.

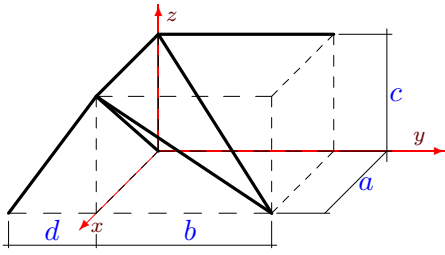
4



$$\begin{aligned} a &= 4, \\ b &= 6, \\ c &= 5, \\ d &= 3. \end{aligned}$$

Задача 21.27.

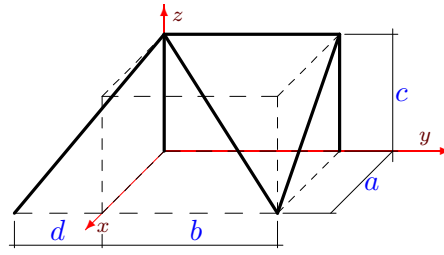
4



$$\begin{aligned} a &= 2, \\ b &= 3, \\ c &= 4, \\ d &= 3. \end{aligned}$$

Задача 21.28.

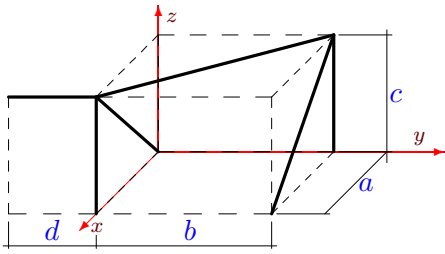
4



$$\begin{aligned} a &= 6, \\ b &= 5, \\ c &= 4, \\ d &= 2. \end{aligned}$$

Задача 21.29.

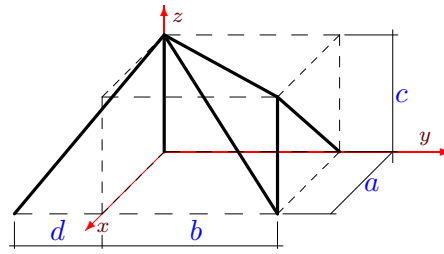
4



$$\begin{aligned} a &= 6, \\ b &= 5, \\ c &= 4, \\ d &= 3. \end{aligned}$$

Задача 21.30.

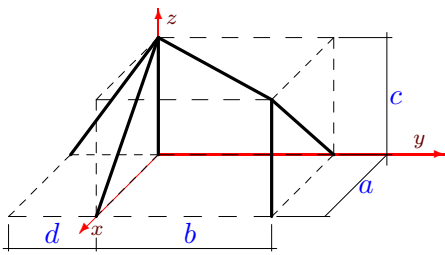
4



$$\begin{aligned} a &= 5, \\ b &= 4, \\ c &= 3, \\ d &= 1. \end{aligned}$$

Задача 21.31.

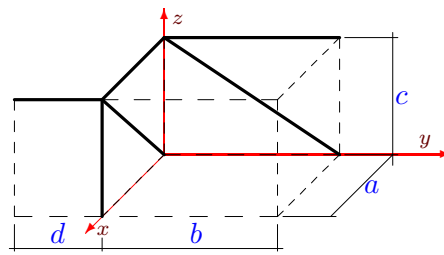
4



$$\begin{aligned} a &= 2, \\ b &= 3, \\ c &= 4, \\ d &= 2. \end{aligned}$$

Задача 21.32.

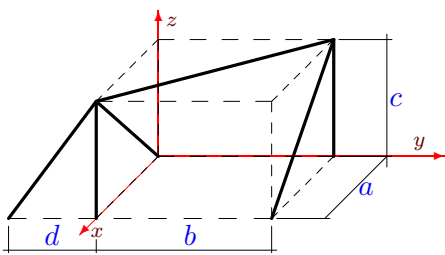
4



$$\begin{aligned} a &= 7, \\ b &= 6, \\ c &= 5, \\ d &= 4. \end{aligned}$$

Задача 21.33.

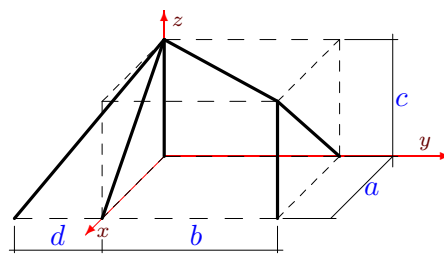
4



$$\begin{aligned} a &= 5, \\ b &= 4, \\ c &= 3, \\ d &= 2. \end{aligned}$$

Задача 21.34.

4



$$\begin{aligned} a &= 2, \\ b &= 3, \\ c &= 4, \\ d &= 2. \end{aligned}$$

Центр тяжести пространственной стержневой фигуры

	L	x_c	y_c	z_c
1	24.550	1.163	1.378	2.538
2	38.249	1.163	2.670	2.892
3	33.232	3.271	2.139	2.651
4	25.432	1.500	1.905	1.795
5	42.315	2.177	2.031	2.854
6	22.844	0.843	1.523	1.763
7	43.234	4.051	2.884	3.264
8	26.065	2.692	1.770	1.984
9	28.333	2.500	1.491	2.374
10	41.199	3.102	0.940	2.534
11	26.761	1.566	1.524	2.010
12	35.616	1.865	0.804	3.202
13	33.747	1.844	1.844	2.671
14	37.088	2.000	2.142	2.986
15	37.728	1.947	0.775	3.163
16	33.614	2.786	0.625	2.654
17	24.074	1.687	1.149	2.061
18	24.824	1.174	1.682	1.742
19	25.091	2.014	1.808	1.978
20	39.460	2.000	2.680	2.957
21	45.926	3.500	2.816	3.416
22	36.009	1.065	2.721	3.194
23	29.671	2.972	1.838	1.824
24	40.424	3.846	2.505	3.318
25	36.557	3.000	1.894	2.773
26	37.088	2.000	2.142	2.986
27	24.857	1.282	0.506	2.402
28	36.469	1.931	2.276	2.274
29	33.232	3.271	2.139	2.651
30	31.221	2.500	1.900	1.808
31	25.022	0.821	1.053	2.288
32	38.413	3.062	0.870	3.606
33	27.671	2.826	1.609	1.847
34	25.449	1.000	1.019	2.283