

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. 5

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

Задача 21.2. 5

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

Задача 21.3. 5

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

Задача 21.4. 5

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

Задача 21.5. 5

$a = 6,$
 $b = 5,$
 $c = 4,$
 $d = 2.$

Задача 21.6. 5

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

Задача 21.7. 5

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

Задача 21.8. 5

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

Задача 21.9. 5

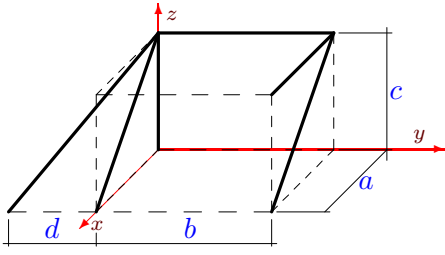
$a = 2,$
 $b = 3,$
 $c = 4,$
 $d = 3.$

Задача 21.10. 5

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

Задача 21.11.

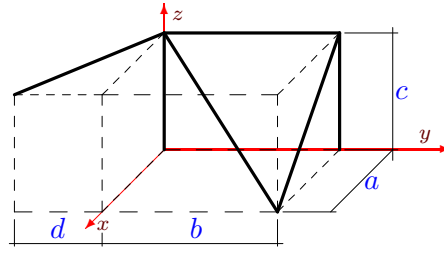
5



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

Задача 21.12.

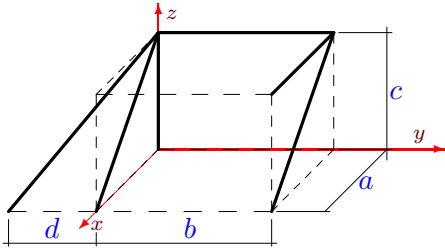
5



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

Задача 21.13.

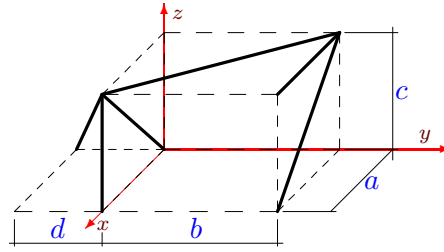
5



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

Задача 21.14.

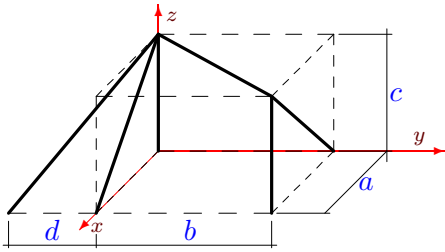
5



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

Задача 21.15.

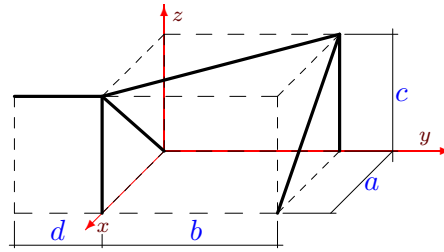
5



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

Задача 21.16.

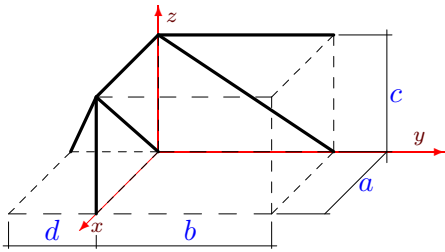
5



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

Задача 21.17.

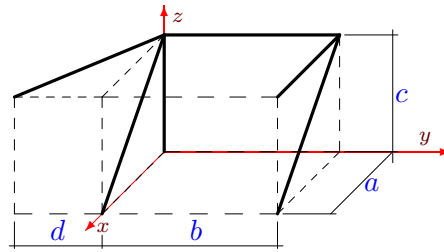
5



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

Задача 21.18.

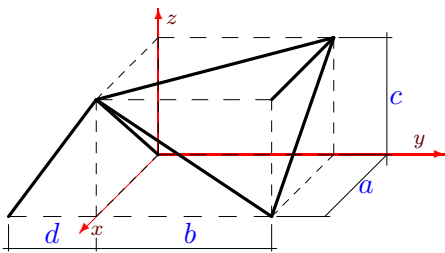
5



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

Задача 21.19.

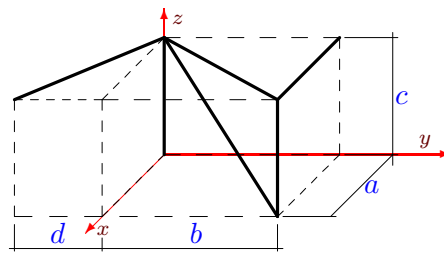
5



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

Задача 21.20.

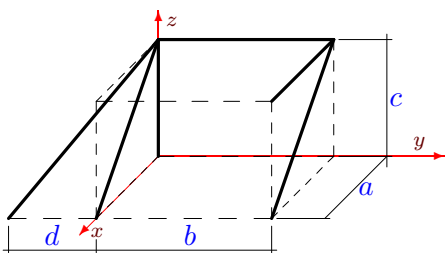
5



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

Задача 21.21.

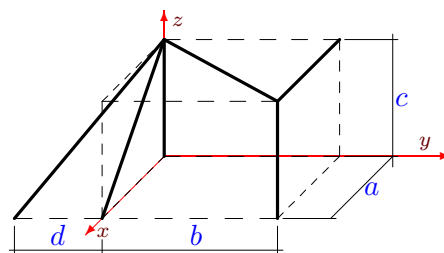
5



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

Задача 21.22.

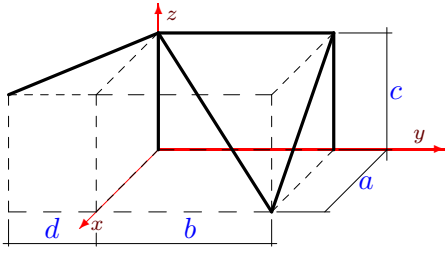
5



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

Задача 21.23.

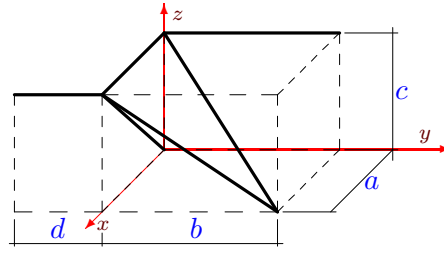
5



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

Задача 21.24.

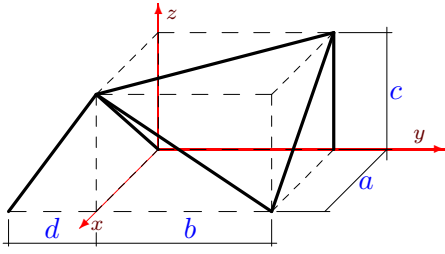
5



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

Задача 21.25.

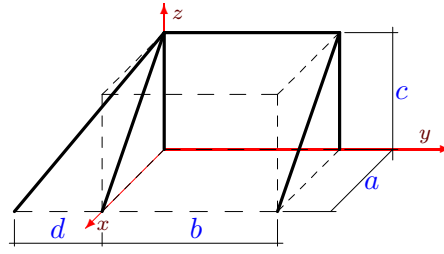
5



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

Задача 21.26.

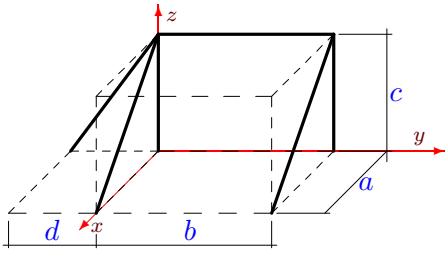
5



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

Задача 21.27.

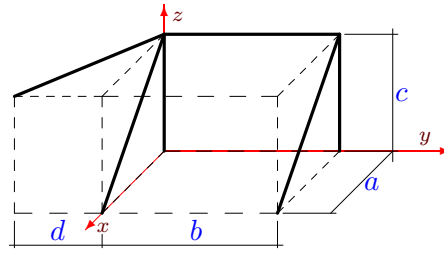
5



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

Задача 21.28.

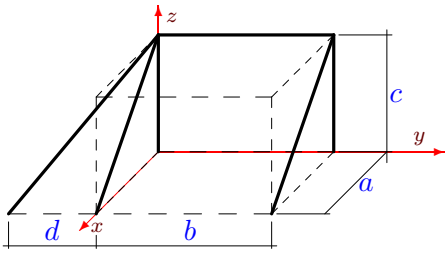
5



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

Задача 21.29.

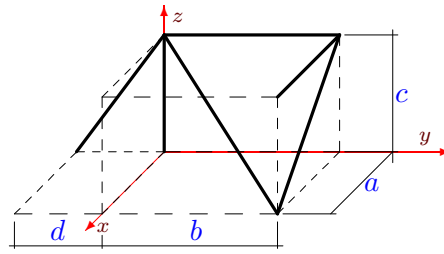
5



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

Задача 21.30.

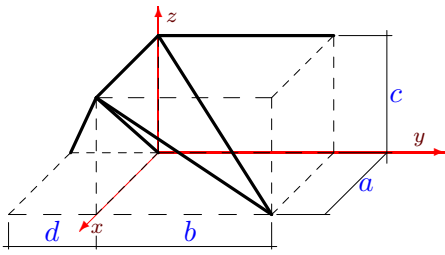
5



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

Задача 21.31.

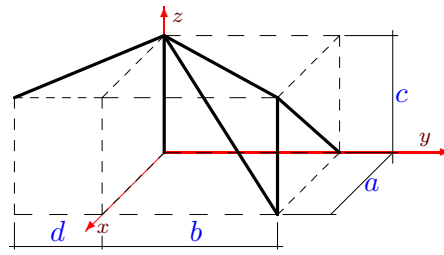
5



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

Задача 21.32.

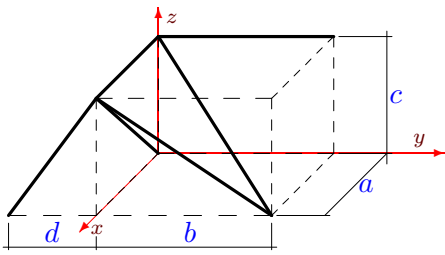
5



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

Задача 21.33.

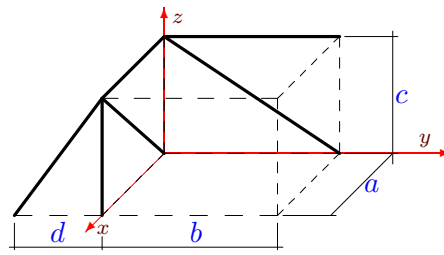
5



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

Задача 21.34.

5



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

Центр тяжести пространственной стержневой фигуры

	L	x_c	y_c	z_c
1	35.817	1.674	2.602	3.283
2	24.857	1.282	0.506	2.402
3	24.074	1.687	1.149	2.061
4	33.232	3.271	2.139	2.651
5	36.469	1.931	2.276	2.274
6	23.686	0.536	1.485	2.492
7	26.362	1.000	1.290	2.274
8	38.220	1.695	2.816	2.972
9	24.857	1.282	0.506	2.402
10	30.818	1.932	2.028	1.938
11	36.906	2.268	1.926	2.596
12	23.236	0.854	2.025	1.962
13	34.877	1.369	2.002	3.217
14	23.935	1.167	0.700	2.468
15	37.088	2.000	2.142	2.986
16	40.424	3.846	2.505	3.318
17	36.424	2.390	0.461	2.604
18	42.820	2.601	2.340	3.704
19	39.636	3.863	2.374	2.697
20	22.993	1.500	1.917	2.228
21	22.843	0.694	0.833	2.438
22	36.505	3.000	1.700	2.757
23	42.706	2.189	2.802	3.297
24	36.988	2.314	1.616	3.446
25	39.231	2.470	2.566	2.960
26	27.578	1.593	1.464	1.718
27	24.416	0.366	1.042	2.246
28	33.747	1.844	1.844	2.671
29	27.578	1.593	1.464	1.718
30	35.458	1.860	2.708	2.620
31	40.538	2.089	1.299	3.117
32	30.404	2.500	1.964	2.067
33	38.389	3.500	1.119	2.573
34	23.472	1.043	0.192	2.426