

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. 7

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

Задача 21.2. 7

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

Задача 21.3. 7

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

Задача 21.4. 7

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

Задача 21.5. 7

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

Задача 21.6. 7

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

Задача 21.7. 7

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

Задача 21.8. 7

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

Задача 21.9. 7

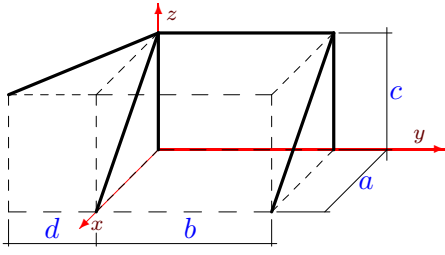
$a = 7,$
 $b = 6,$
 $c = 5,$
 $d = 3.$

Задача 21.10. 7

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

Задача 21.11.

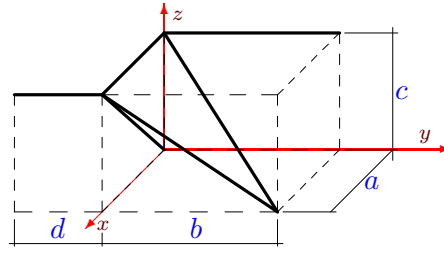
7



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

Задача 21.12.

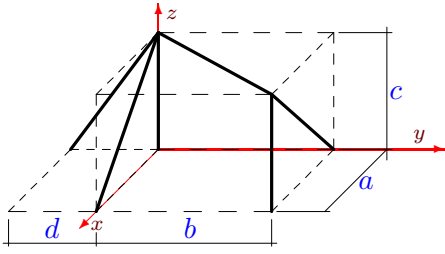
7



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

Задача 21.13.

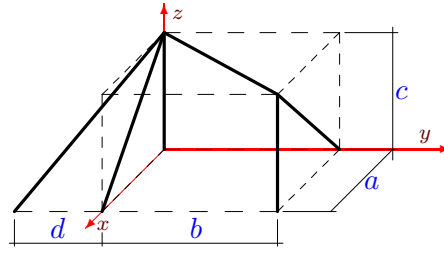
7



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

Задача 21.14.

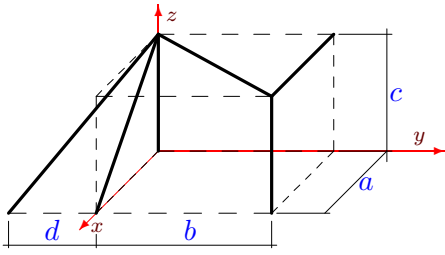
7



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

Задача 21.15.

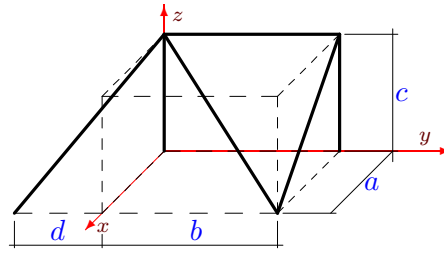
7



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

Задача 21.16.

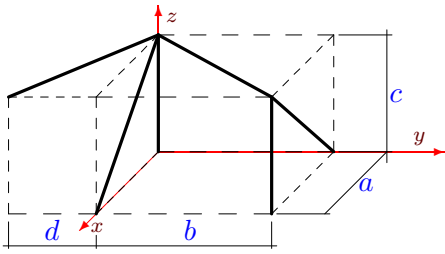
7



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

Задача 21.17.

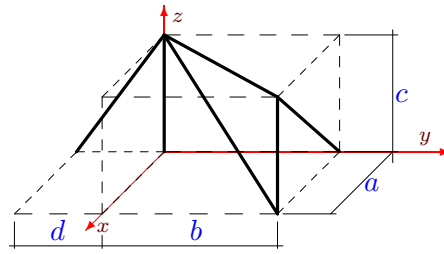
7



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

Задача 21.18.

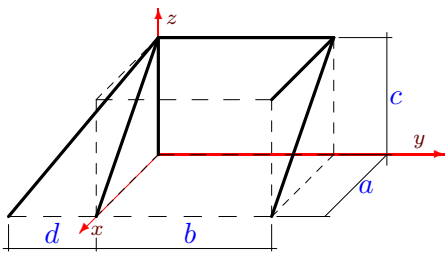
7



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

Задача 21.19.

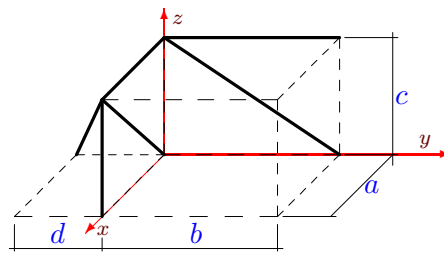
7



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

Задача 21.20.

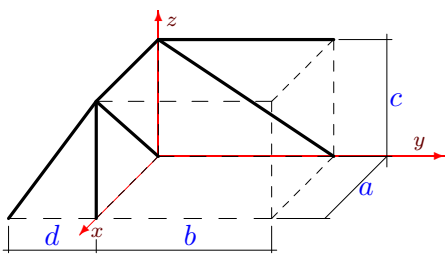
7



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

Задача 21.21.

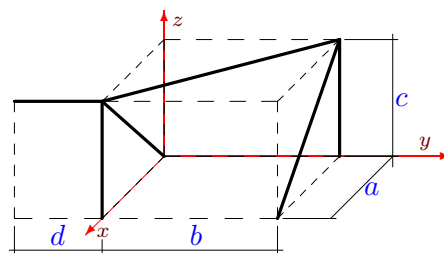
7



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

Задача 21.22.

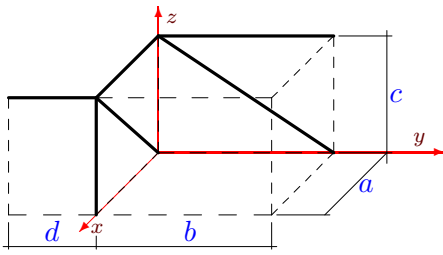
7



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

Задача 21.23.

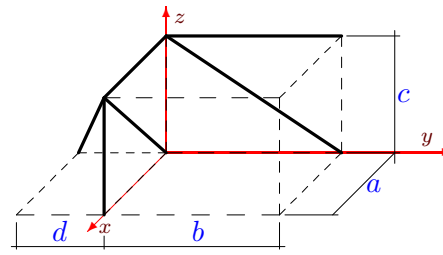
7



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

Задача 21.24.

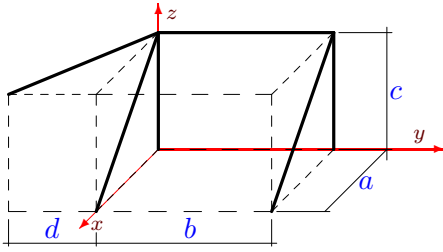
7



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

Задача 21.25.

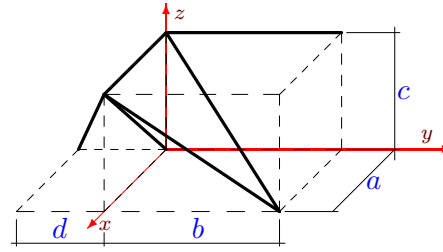
7



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

Задача 21.26.

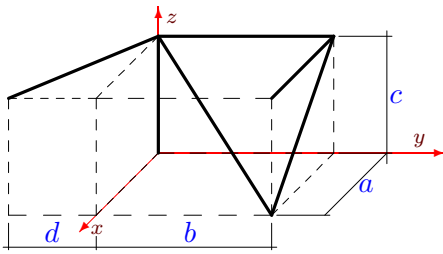
7



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

Задача 21.27.

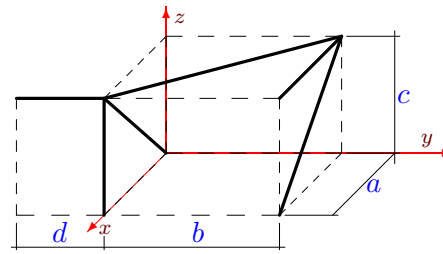
7



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

Задача 21.28.

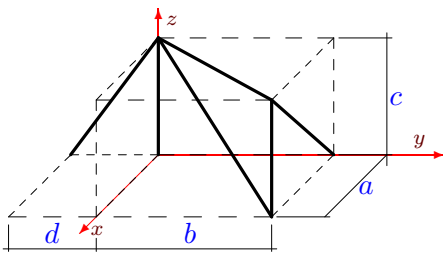
7



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

Задача 21.29.

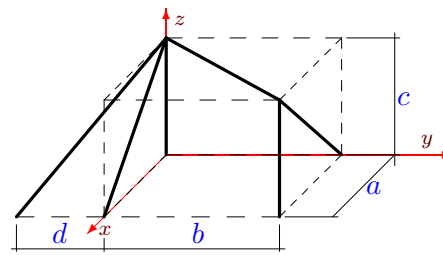
7



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

Задача 21.30.

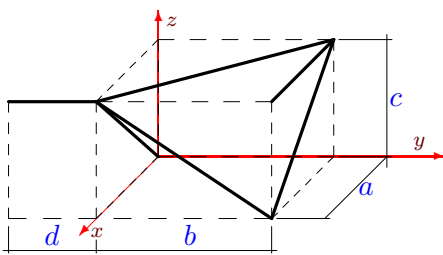
7



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

Задача 21.31.

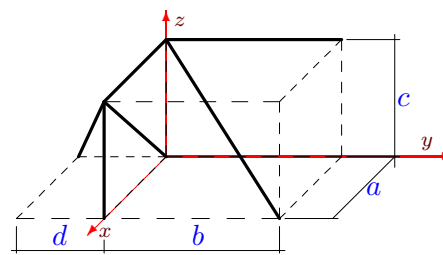
7



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

Задача 21.32.

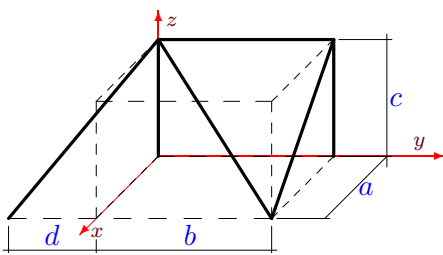
7



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

Задача 21.33.

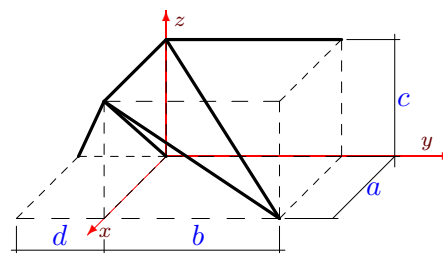
7



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

Задача 21.34.

7



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

Центр тяжести пространственной стержневой фигуры

	L	x_c	y_c	z_c
1	26.176	1.615	1.692	1.787
2	36.009	1.065	2.721	3.194
3	45.911	3.500	1.967	3.002
4	37.057	2.000	2.465	3.256
5	42.255	3.017	2.379	3.045
6	36.469	1.931	2.276	2.274
7	24.176	1.500	1.418	1.810
8	23.756	0.705	1.141	2.421
9	44.315	2.631	2.210	3.233
10	35.747	2.245	2.021	2.969
11	33.747	1.844	1.844	2.671
12	22.857	1.219	0.682	2.700
13	34.705	2.613	2.049	2.450
14	25.449	1.000	1.019	2.283
15	36.505	3.000	1.700	2.757
16	36.469	1.931	2.276	2.274
17	36.557	3.000	1.894	2.773
18	36.268	2.630	2.565	2.431
19	44.315	2.631	2.210	3.233
20	36.763	1.521	0.716	3.180
21	33.614	2.786	0.625	2.654
22	26.065	2.692	1.770	1.984
23	31.614	2.582	0.759	2.886
24	28.995	1.983	0.408	1.966
25	22.773	0.517	1.189	2.512
26	26.764	1.556	0.933	1.892
27	37.311	2.276	2.524	2.929
28	28.065	2.945	1.929	2.216
29	44.141	3.038	2.990	3.022
30	37.716	3.000	1.806	2.414
31	23.485	1.947	2.000	2.139
32	37.728	1.947	0.775	3.163
33	28.818	1.632	1.891	1.708
34	25.242	1.079	0.475	2.396