

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. 8

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

Задача 21.2. 8

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

Задача 21.3. 8

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

Задача 21.4. 8

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

Задача 21.5. 8

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

Задача 21.6. 8

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

Задача 21.7. 8

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

Задача 21.8. 8

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

Задача 21.9. 8

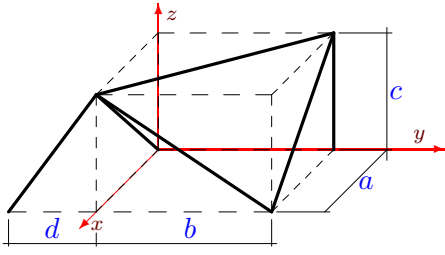
$a = 5,$
 $b = 4,$
 $c = 3,$
 $d = 1.$

Задача 21.10. 8

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

Задача 21.11.

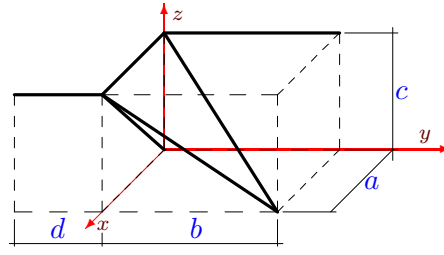
8



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

Задача 21.12.

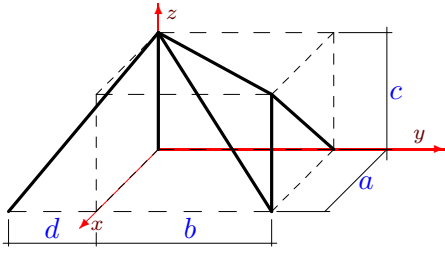
8



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

Задача 21.13.

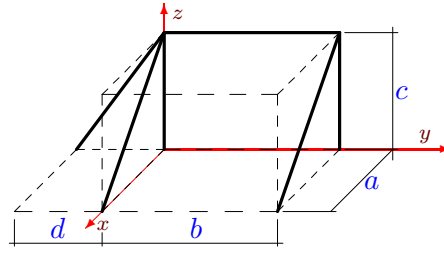
8



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

Задача 21.14.

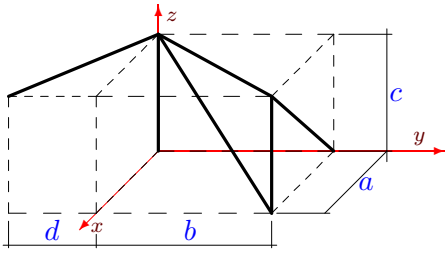
8



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

Задача 21.15.

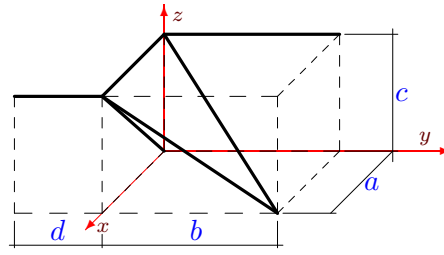
8



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

Задача 21.16.

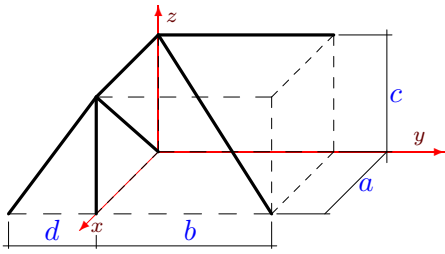
8



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

Задача 21.17.

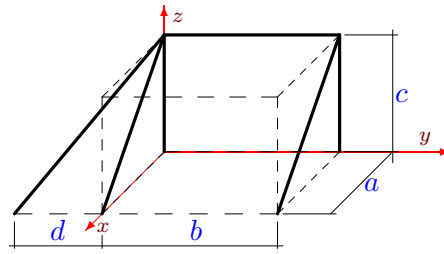
8



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

Задача 21.18.

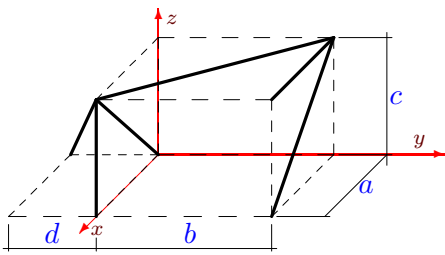
8



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

Задача 21.19.

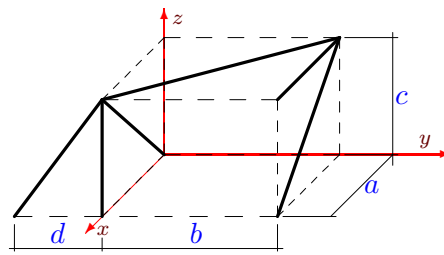
8



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

Задача 21.20.

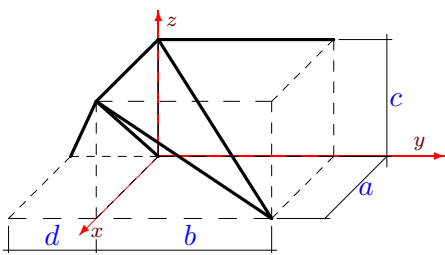
8



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

Задача 21.21.

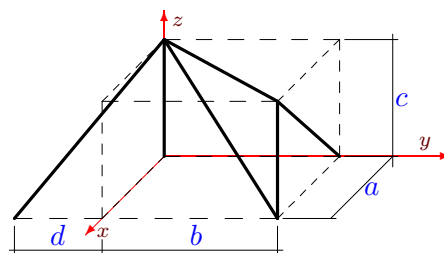
8



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

Задача 21.22.

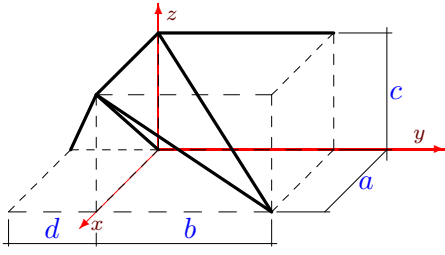
8



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

Задача 21.23.

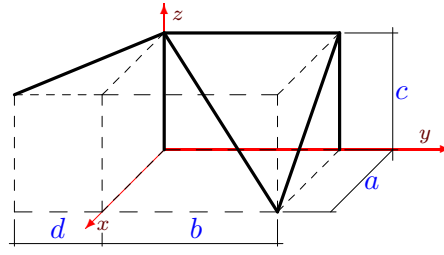
8



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

Задача 21.24.

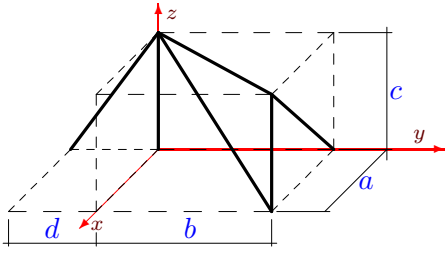
8



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

Задача 21.25.

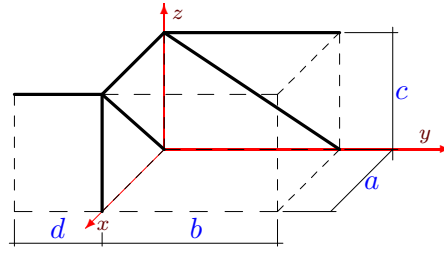
8



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

Задача 21.26.

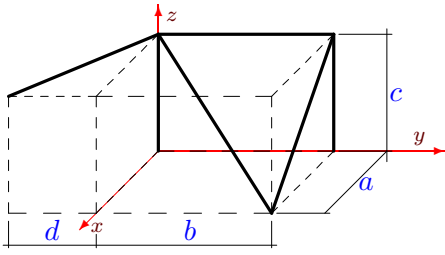
8



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

Задача 21.27.

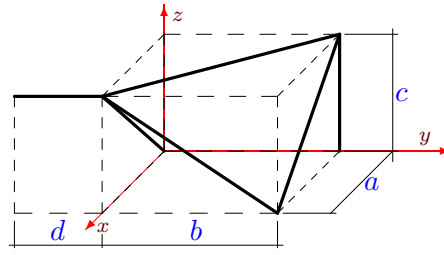
8



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

Задача 21.28.

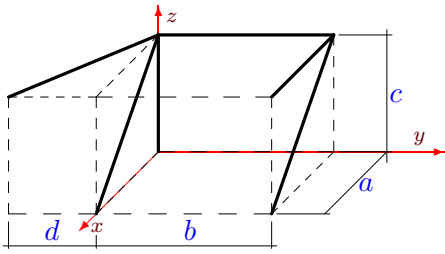
8



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

Задача 21.29.

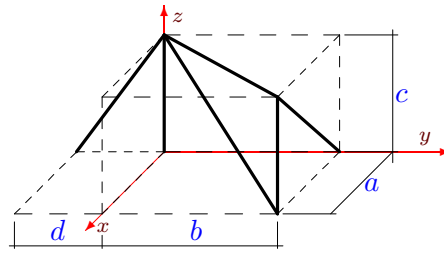
8



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

Задача 21.30.

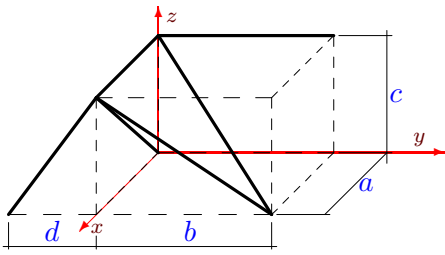
8



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

Задача 21.31.

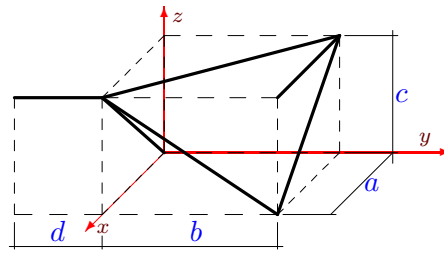
8



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

Задача 21.32.

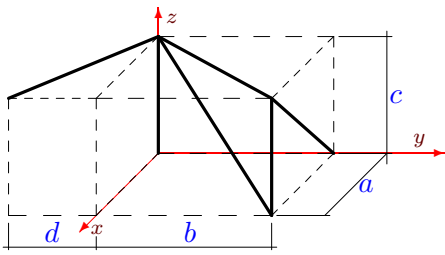
8



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

Задача 21.33.

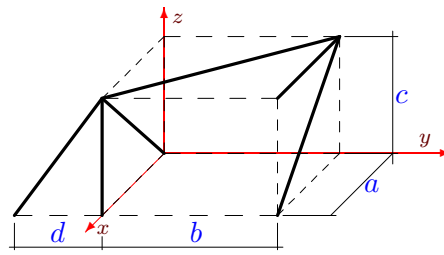
8



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

Задача 21.34.

8



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

Центр тяжести пространственной стержневой фигуры

	L	x_c	y_c	z_c
1	36.763	1.521	0.716	3.180
2	24.432	0.886	1.901	1.746
3	38.043	3.000	1.679	2.411
4	39.636	3.863	2.374	2.697
5	22.602	1.500	1.408	2.031
6	41.199	3.102	0.940	2.534
7	35.346	3.000	1.788	3.139
8	47.911	3.865	2.135	3.346
9	29.150	2.500	1.436	2.087
10	35.616	1.865	0.804	3.202
11	45.638	4.207	2.627	3.005
12	36.988	2.314	1.616	3.446
13	31.221	2.500	1.900	1.808
14	24.416	0.366	1.042	2.246
15	45.926	3.500	2.816	3.416
16	36.988	2.314	1.616	3.446
17	23.857	1.251	0.213	2.419
18	24.843	0.557	1.007	2.242
19	40.043	3.300	1.845	2.690
20	44.827	4.390	2.420	3.405
21	41.199	3.102	0.940	2.534
22	39.280	3.000	2.292	2.398
23	40.538	2.089	1.299	3.117
24	23.686	0.536	1.485	2.492
25	36.268	2.630	2.565	2.431
26	31.614	2.582	0.759	2.886
27	28.001	1.607	1.961	1.987
28	24.550	1.163	1.378	2.538
29	28.761	1.892	1.696	2.235
30	38.220	1.695	2.816	2.972
31	38.389	3.500	1.119	2.573
32	23.485	1.947	2.000	2.139
33	24.236	1.500	2.024	2.005
34	29.671	3.057	1.770	2.076