

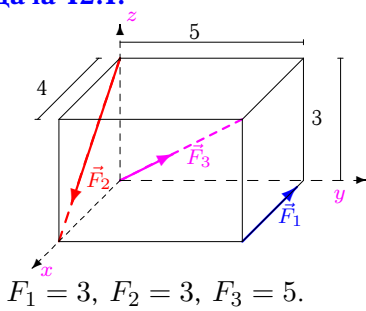
## Приведение системы сил

Систему трех сил, приложенных к вершинам параллелепипеда, привести к началу координат. Найти координаты точки пересечения центральной винтовой оси с плоскостью  $xy$ . Размеры на рисунках даны в м, силы — в Н.

Кирсанов М.Н. **Решбник. Теоретическая механика**/Под ред. А. И. Кириллова.— М.: ФИЗМАТЛИТ, 2008. — 384 с. (с.111.)

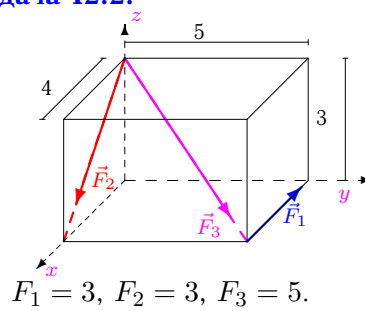
**Задача 12.1.**

10



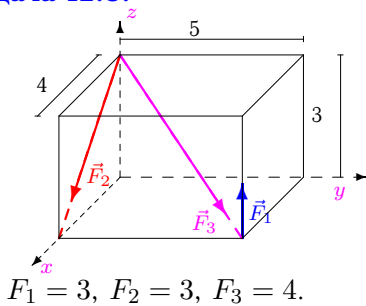
**Задача 12.2.**

10



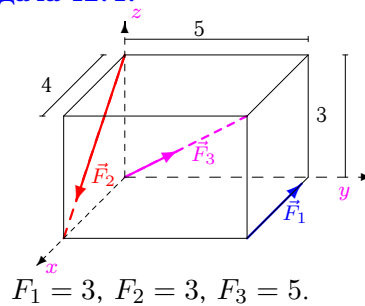
**Задача 12.3.**

10



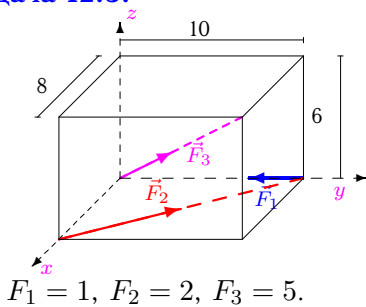
**Задача 12.4.**

10



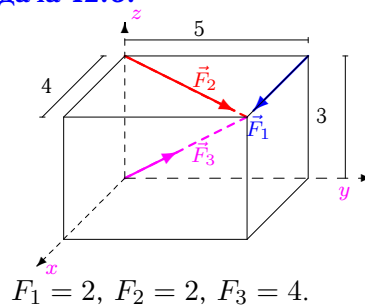
**Задача 12.5.**

10



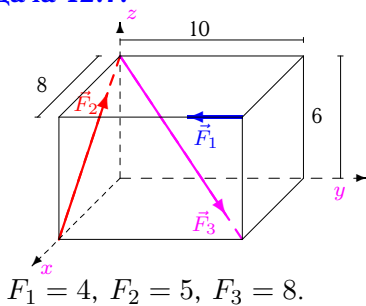
**Задача 12.6.**

10



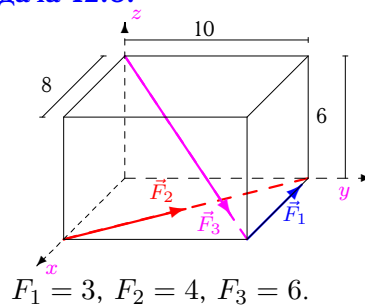
**Задача 12.7.**

10



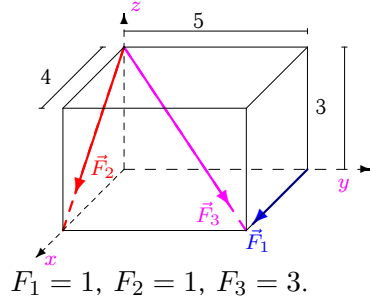
**Задача 12.8.**

10



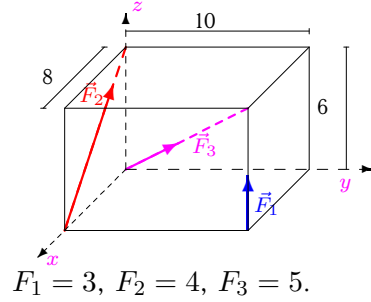
**Задача 12.9.**

10



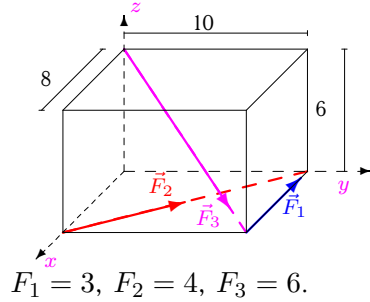
**Задача 12.10.**

10



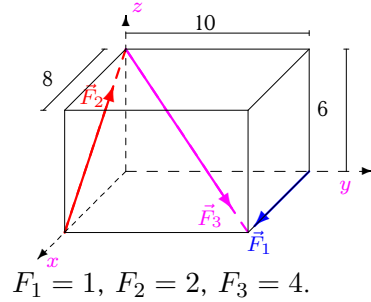
**Задача 12.11.**

10



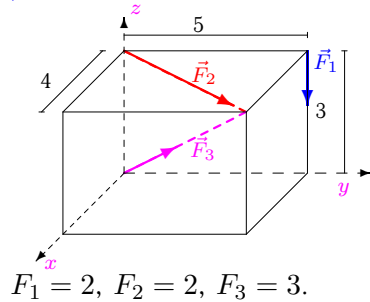
**Задача 12.12.**

10



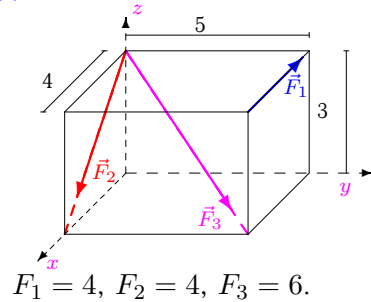
**Задача 12.13.**

10



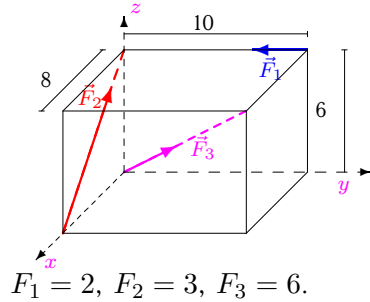
**Задача 12.14.**

10



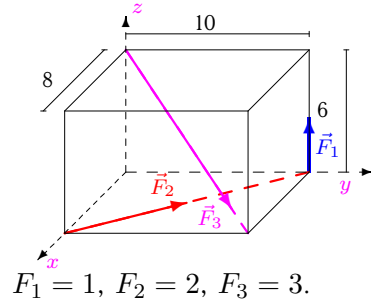
**Задача 12.15.**

10



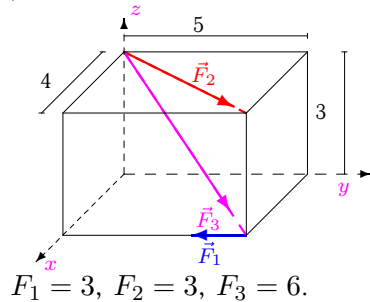
**Задача 12.16.**

10



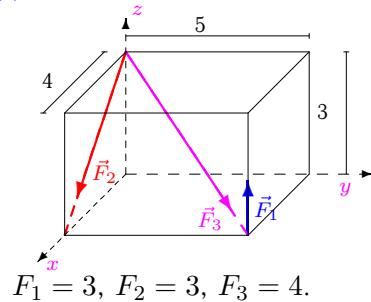
**Задача 12.17.**

10



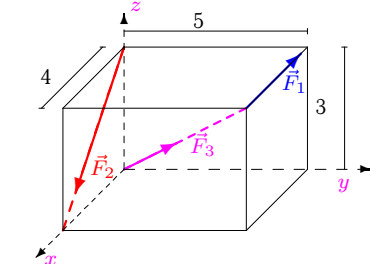
**Задача 12.18.**

10



**Задача 12.19.**

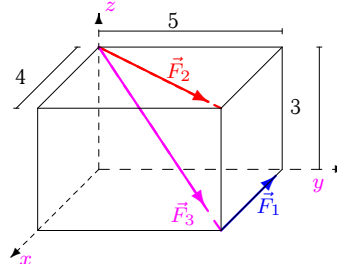
10



$F_1 = 4, F_2 = 4, F_3 = 6.$

**Задача 12.20.**

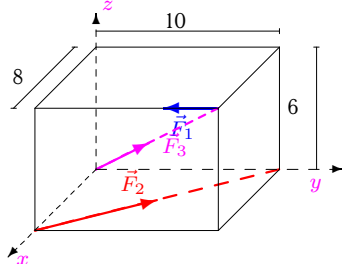
10



$F_1 = 3, F_2 = 3, F_3 = 5.$

**Задача 12.21.**

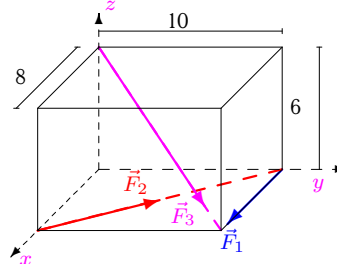
10



$F_1 = 4, F_2 = 5, F_3 = 8.$

**Задача 12.22.**

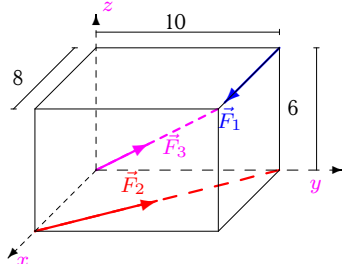
10



$F_1 = 1, F_2 = 2, F_3 = 4.$

**Задача 12.23.**

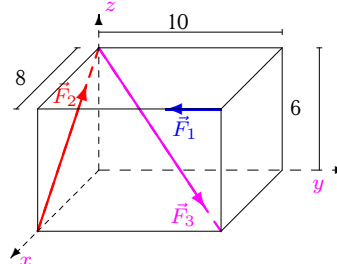
10



$F_1 = 2, F_2 = 3, F_3 = 5.$

**Задача 12.24.**

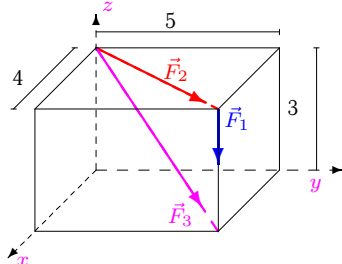
10



$F_1 = 4, F_2 = 5, F_3 = 8.$

**Задача 12.25.**

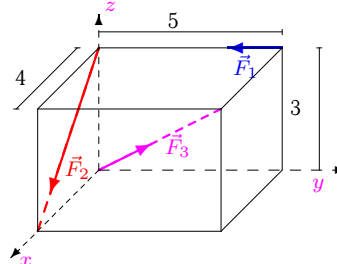
10



$F_1 = 4, F_2 = 4, F_3 = 5.$

**Задача 12.26.**

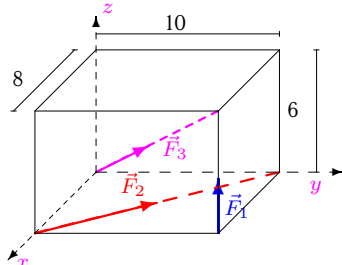
10



$F_1 = 2, F_2 = 2, F_3 = 5.$

**Задача 12.27.**

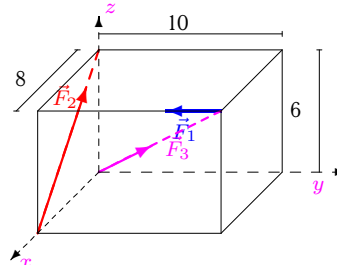
10



$F_1 = 3, F_2 = 4, F_3 = 5.$

**Задача 12.28.**

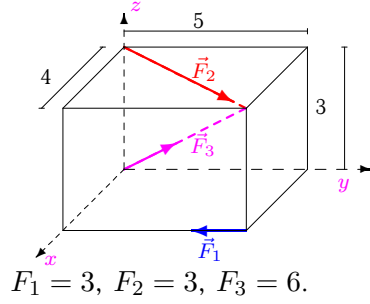
10



$F_1 = 4, F_2 = 5, F_3 = 8.$

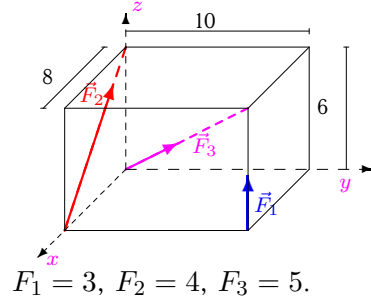
**Задача 12.29.**

10



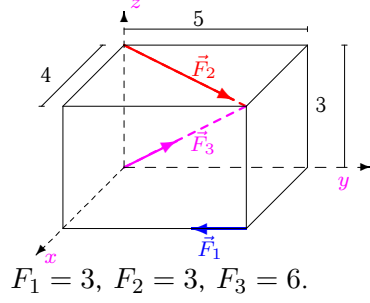
**Задача 12.30.**

10



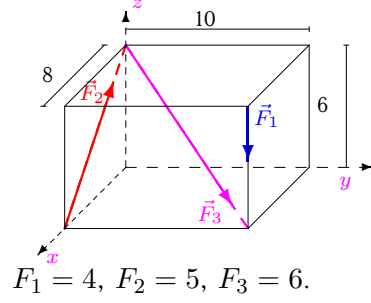
**Задача 12.31.**

10



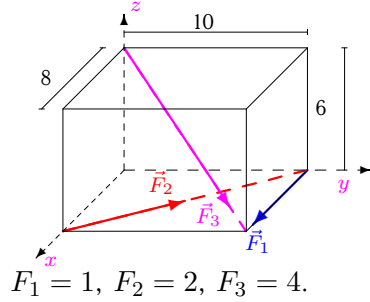
**Задача 12.32.**

10



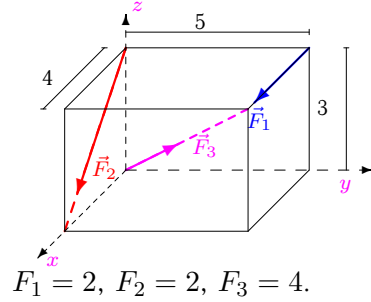
**Задача 12.33.**

10



**Задача 12.34.**

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## Приведение системы сил

	$R_x$	$R_y$	$R_z$	$R$	$M_x$	$M_y$	$M_z$	$M$	$I$	$M_{min}$	$x_A$	$y_A$
1	2.228	3.536	0.321	4.192	0.000	7.200	15.000	16.639	30.276	7.223	-3.447	-11.951
2	2.228	3.536	-3.921	5.731	-10.607	15.685	15.000	24.156	-27.000	-4.711	4.741	2.238
3	4.663	2.828	-0.497	5.476	6.515	1.988	0.000	6.811	36.000	6.574	-2.831	-1.845
4	2.228	3.536	0.321	4.192	0.000	7.200	15.000	16.639	30.276	7.223	-3.447	-11.951
5	1.579	4.097	2.121	4.877	0.000	0.000	12.494	12.494	26.504	5.435	2.153	-0.830
6	5.512	4.390	1.697	7.248	-4.685	9.748	-10.000	14.730	-0.000	-0.000	-5.744	-2.761
7	0.525	1.657	-0.394	1.782	-9.941	3.153	-32.000	33.657	12.612	7.076	-8.690	30.518
8	-2.105	7.366	-2.546	8.073	-25.456	20.365	54.988	63.925	63.609	7.879	5.176	9.193
9	3.497	2.121	-1.873	4.499	-6.364	7.491	-5.000	11.028	3.000	0.667	3.832	3.675
10	-0.372	3.536	7.521	8.319	30.000	-43.200	0.000	52.595	-163.882	-19.699	4.631	3.872
11	-2.105	7.366	-2.546	8.073	-25.456	20.365	54.988	63.925	63.609	7.879	5.176	9.193
12	1.663	2.828	-0.497	3.318	-16.971	3.976	-10.000	20.095	-12.000	-3.616	14.201	30.497
13	2.946	3.683	-0.727	4.772	-14.685	3.748	0.000	15.156	-29.464	-6.174	11.706	14.952
14	2.594	4.243	-4.946	7.013	-12.728	7.782	20.000	24.951	-98.912	-14.103	3.299	1.519
15	0.994	2.243	4.346	4.990	12.000	-14.400	0.000	18.745	-20.365	-4.081	2.892	2.949
16	0.448	3.683	-0.273	3.720	-2.728	10.182	12.494	16.347	32.873	8.836	5.257	13.898
17	5.268	3.585	-2.546	6.862	-19.756	15.805	-12.000	28.001	-16.867	-2.458	6.713	7.019
18	4.663	2.828	-0.497	5.476	6.515	1.988	0.000	6.811	36.000	6.574	-2.831	-1.845
19	2.594	4.243	0.146	4.975	0.000	-2.400	20.000	20.143	-7.271	-1.461	7.925	5.234
20	1.703	5.878	-2.121	6.477	-17.634	14.108	15.000	27.111	21.083	3.255	5.258	8.716
21	1.402	5.561	3.394	6.664	24.000	0.000	-0.765	24.012	31.051	4.659	1.146	6.782
22	2.013	4.390	-1.697	5.119	-16.971	13.576	2.494	21.876	21.203	4.142	5.907	10.960
23	2.954	5.878	2.121	6.912	0.000	12.000	-1.259	12.066	67.867	9.818	-1.721	-1.978
24	0.525	1.657	-0.394	1.782	-9.941	3.153	-32.000	33.657	12.612	7.076	-8.690	30.518
25	5.327	6.659	-6.121	10.497	-39.977	31.982	0.000	51.196	0.000	0.000	5.225	6.531
26	4.428	1.536	0.921	4.777	6.000	4.800	0.000	7.684	33.941	7.105	-2.731	-0.637
27	0.330	6.659	5.121	8.407	30.000	-24.000	24.988	45.830	-21.956	-2.612	4.282	5.878
28	0.525	1.657	6.394	6.626	24.000	-24.000	-32.000	46.648	-231.765	-34.977	2.386	4.187
29	5.268	3.585	2.546	6.862	-7.028	5.622	-12.000	15.000	-47.414	-6.910	-3.627	-0.677
30	-0.372	3.536	7.521	8.319	30.000	-43.200	0.000	52.595	-163.882	-19.699	4.631	3.872
31	5.268	3.585	2.546	6.862	-7.028	5.622	-12.000	15.000	-47.414	-6.910	-3.627	-0.677
32	-0.606	4.243	-3.546	5.562	-65.456	28.365	0.000	71.337	160.000	28.766	1.812	17.577
33	2.013	4.390	-1.697	5.119	-16.971	13.576	2.494	21.876	21.203	4.142	5.907	10.960
34	5.863	2.828	0.497	6.528	0.000	10.800	-10.000	14.719	25.576	3.918	-18.313	-7.078