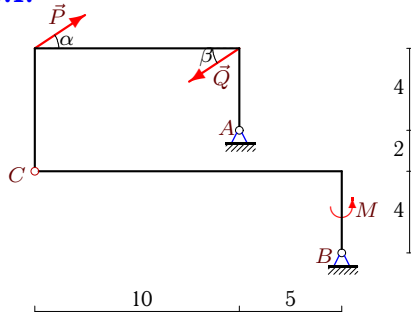


Составная прямоугольная рама

Рама состоит из двух частей, соединенных шарниром или скользящей заделкой. Размеры даны в метрах. Найти реакции опор.

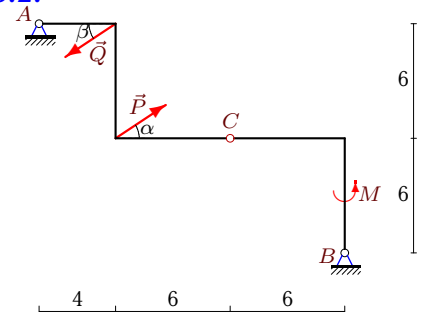
Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.:ФИЗМАТЛИТ, 2008.– 384 с. (с.54.)

Задача 8.1.



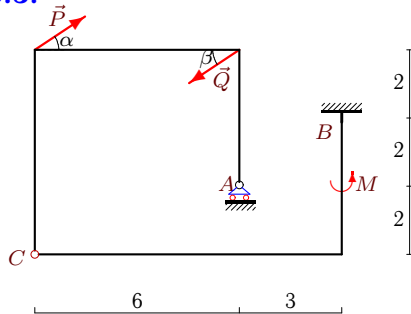
$P=2\text{кН}, Q=9\text{кН}, \alpha=45^\circ, \beta=60^\circ, M=8\text{ кНм}.$

Задача 8.2.



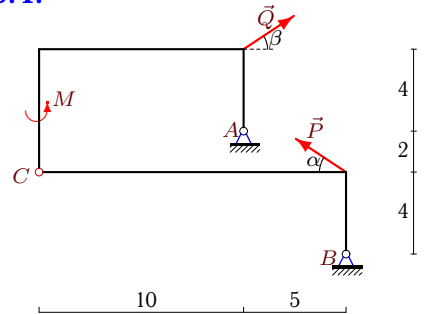
$P=2\text{кН}, Q=1\text{кН}, \alpha=30^\circ, \beta=60^\circ, M=3\text{ кНм}.$

Задача 8.3.



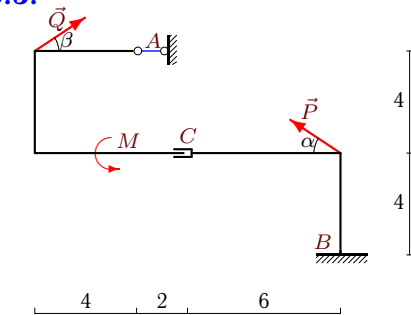
$P=6\text{кН}, Q=6\text{кН}, \alpha=30^\circ, \beta=60^\circ, M=7\text{ кНм}.$

Задача 8.4.



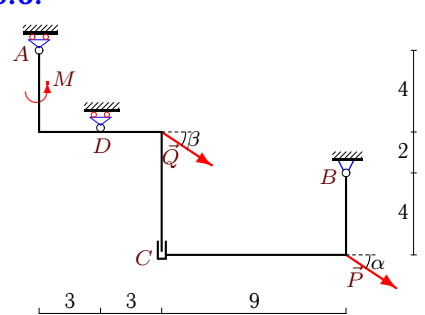
$P=4\text{кН}, Q=1\text{кН}, \alpha=60^\circ, \beta=45^\circ, M=3\text{ кНм}.$

Задача 8.5.



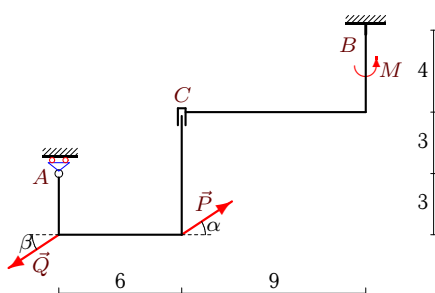
$P=9\text{кН}, Q=6\text{кН}, \alpha=45^\circ, \beta=30^\circ, M=3\text{ кНм}.$

Задача 8.6.



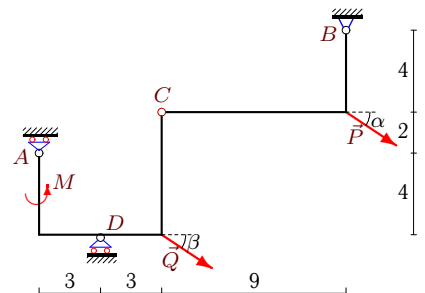
$P=6\text{кН}, Q=6\text{кН}, \alpha=45^\circ, \beta=60^\circ, M=8\text{ кНм}.$

Задача 8.7.



$P=7\text{кН}, Q=4\text{кН}, \alpha=45^\circ, \beta=30^\circ, M=8\text{ кНм}.$

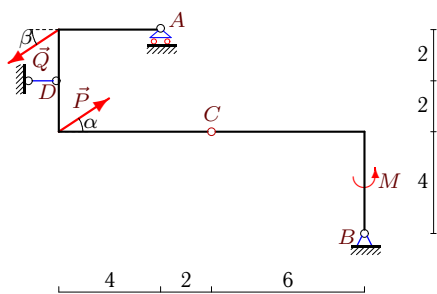
Задача 8.8.



$P=5\text{кН}, Q=2\text{кН}, \alpha=30^\circ, \beta=45^\circ, M=8\text{ кНм}.$

Задача 8.9.

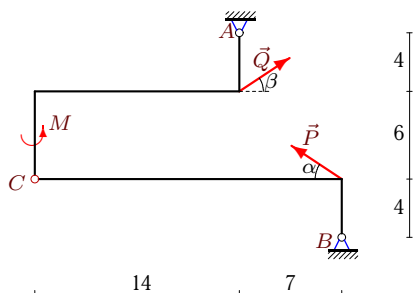
8



$P=4\text{кН}$, $Q=3\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=3\text{ кНм}$.

Задача 8.11.

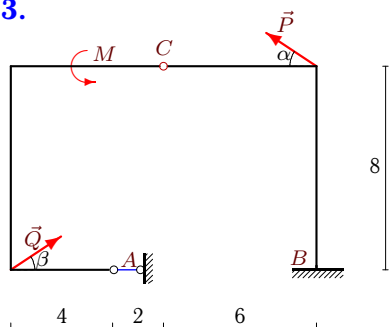
8



$P=4\text{кН}$, $Q=2\text{кН}$, $\alpha=45^\circ$, $\beta=60^\circ$, $M=8\text{ кНм}$.

Задача 8.13.

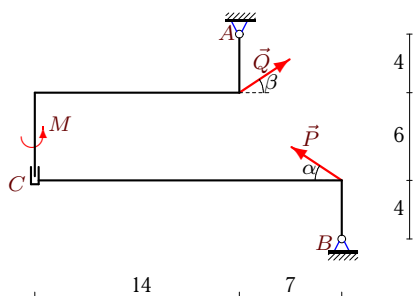
8



$P=8\text{кН}$, $Q=6\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=1\text{ кНм}$.

Задача 8.15.

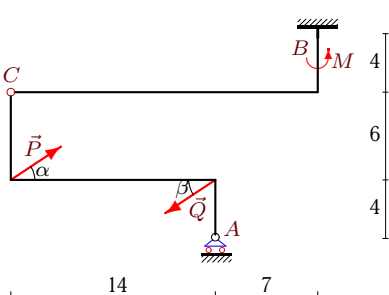
8



$P=5\text{кН}$, $Q=2\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=1\text{ кНм}$.

Задача 8.17.

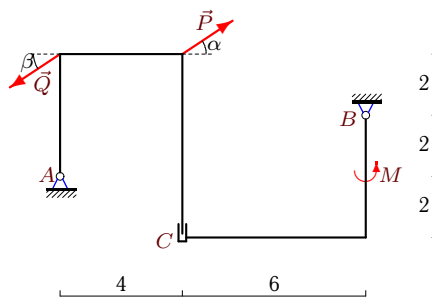
8



$P=6\text{кН}$, $Q=4\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=6\text{ кНм}$.

Задача 8.10.

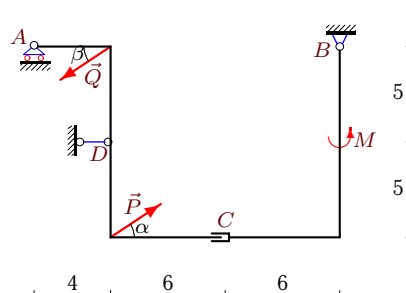
8



$P=3\text{кН}$, $Q=2\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=2\text{ кНм}$.

Задача 8.12.

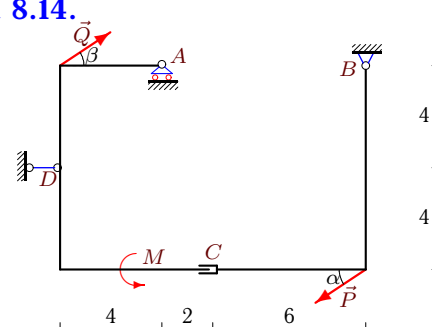
8



$P=5\text{кН}$, $Q=8\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=3\text{ кНм}$.

Задача 8.14.

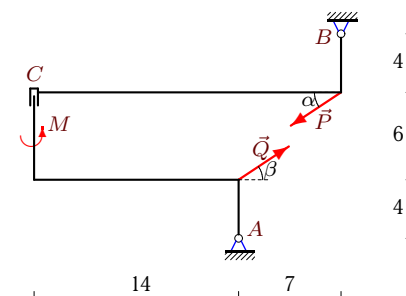
8



$P=7\text{кН}$, $Q=1\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=9\text{ кНм}$.

Задача 8.16.

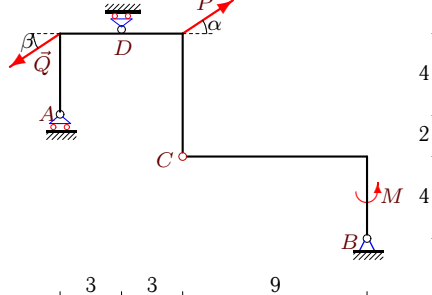
8



$P=5\text{кН}$, $Q=7\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=8\text{ кНм}$.

Задача 8.18.

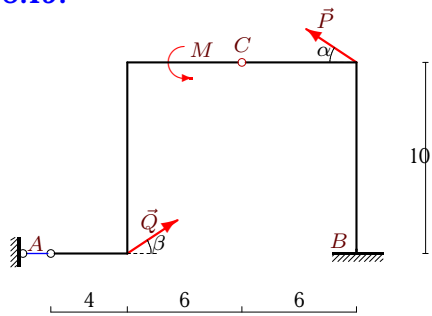
8



$P=4\text{кН}$, $Q=7\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=3\text{ кНм}$.

Задача 8.19.

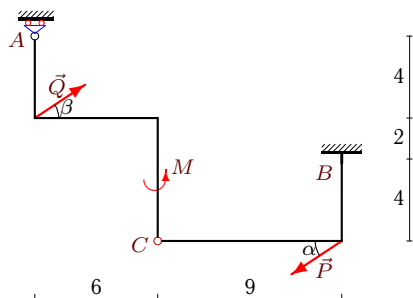
8



$P=8\text{кН}, Q=5\text{кН}, \alpha=45^\circ, \beta=60^\circ, M=8\text{ кНм}.$

Задача 8.21.

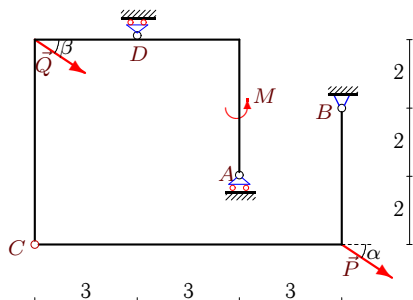
8



$P=8\text{кН}, Q=6\text{кН}, \alpha=45^\circ, \beta=30^\circ, M=1\text{ кНм}.$

Задача 8.23.

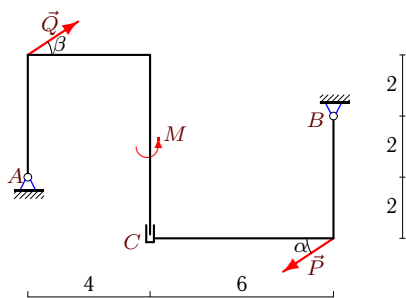
8



$P=5\text{кН}, Q=4\text{кН}, \alpha=30^\circ, \beta=45^\circ, M=5\text{ кНм}.$

Задача 8.25.

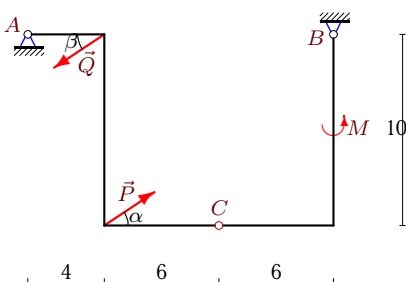
8



$P=5\text{кН}, Q=9\text{кН}, \alpha=45^\circ, \beta=30^\circ, M=8\text{ кНм}.$

Задача 8.27.

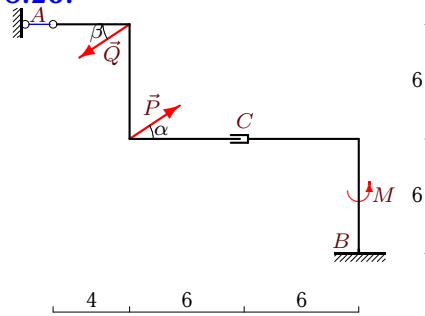
8



$P=2\text{кН}, Q=4\text{кН}, \alpha=45^\circ, \beta=60^\circ, M=5\text{ кНм}.$

Задача 8.20.

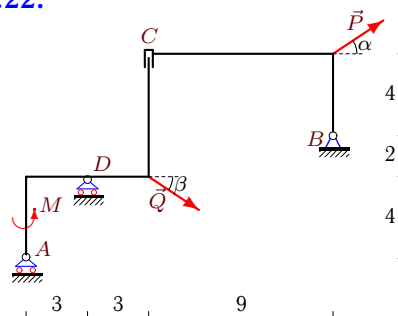
8



$P=7\text{кН}, Q=9\text{кН}, \alpha=60^\circ, \beta=30^\circ, M=9\text{ кНм}.$

Задача 8.22.

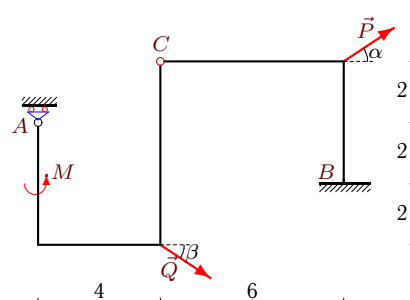
8



$P=6\text{кН}, Q=5\text{кН}, \alpha=60^\circ, \beta=30^\circ, M=6\text{ кНм}.$

Задача 8.24.

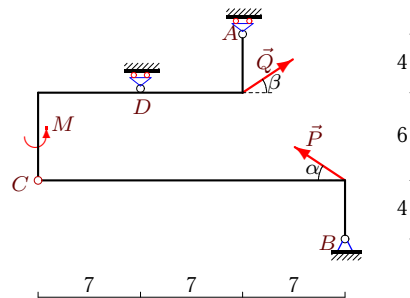
8



$P=7\text{кН}, Q=1\text{кН}, \alpha=45^\circ, \beta=30^\circ, M=4\text{ кНм}.$

Задача 8.26.

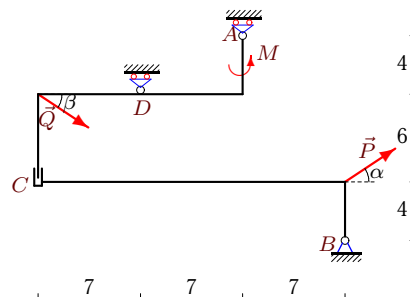
8



$P=6\text{кН}, Q=2\text{кН}, \alpha=60^\circ, \beta=30^\circ, M=1\text{ кНм}.$

Задача 8.28.

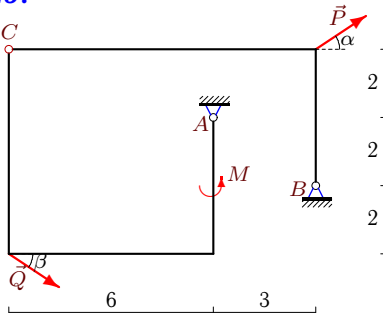
8



$P=6\text{кН}, Q=4\text{кН}, \alpha=45^\circ, \beta=60^\circ, M=8\text{ кНм}.$

Задача 8.29.

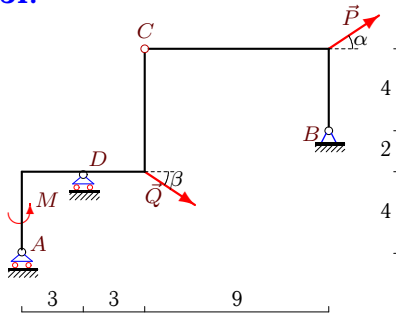
8



$P=3\text{кН}$, $Q=7\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=7\text{кНм}$.

Задача 8.31.

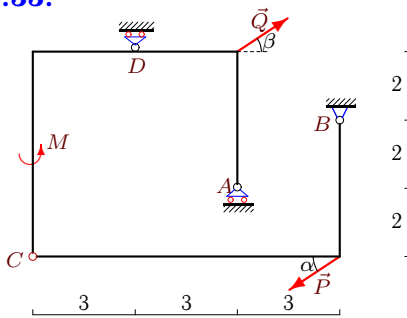
8



$P=5\text{кН}$, $Q=3\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=9\text{кНм}$.

Задача 8.33.

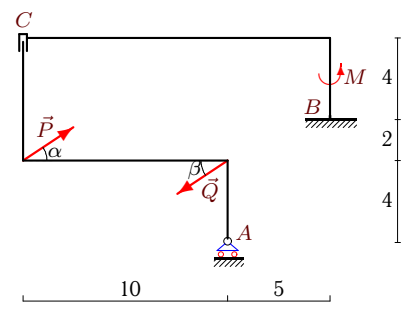
8



$P=6\text{кН}$, $Q=3\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=2\text{кНм}$.

Задача 8.30.

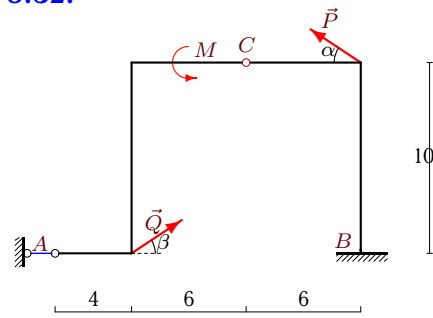
8



$P=7\text{кН}$, $Q=3\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=5\text{кНм}$.

Задача 8.32.

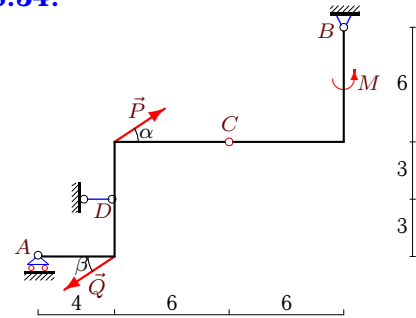
8



$P=8\text{кН}$, $Q=5\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=8\text{кНм}$.

Задача 8.34.

8



$P=4\text{кН}$, $Q=8\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=5\text{кНм}$.

Составная прямоугольная рама

	X_A	Y_A	X_B	Y_B	X_D	Y_D	M_B
1	3.843	6.711	-0.757	-0.331	—	—	—
2	-2.714	1.848	1.482	-1.982	—	—	—
3	—	7.392	-2.196	-5.196	—	—	30.981
4	0.473	-0.488	0.820	-3.683	—	—	—
5	-5.196	—	6.364	-9.364	—	—	7.544
6	—	1.127	-7.243	4.243	—	4.069	—
7	—	-2.950	-1.486	0.000	—	—	-52.555
8	—	1.528	-5.744	-0.053	—	2.439	—
9	—	-5.368	-6.809	4.039	6.579	—	—
10	-2.402	0.232	0.804	0.000	—	—	—
11	0.543	-1.487	1.286	-3.073	—	—	—
12	—	2.886	0.000	-3.216	4.428	—	—
13	0.772	—	3.156	-9.196	—	—	5.928
14	—	-5.008	4.950	9.458	-0.866	—	—
15	-0.156	-1.000	1.959	-3.536	—	—	—
16	-4.187	-3.500	0.625	4.330	—	—	—
17	—	2.755	-0.172	-5.123	—	—	100.889
18	—	12.950	4.062	-2.139	—	-10.775	—
19	-0.702	—	3.859	-9.987	—	—	-12.607
20	4.294	—	0.000	-1.562	—	—	-11.254
21	—	-8.029	0.461	10.686	—	—	-43.423
22	—	-1.613	-7.330	-5.196	—	4.113	—
23	—	-2.020	-7.159	-0.682	—	8.030	—
24	—	2.299	-5.816	-6.749	—	—	34.057
25	10.865	-4.500	-15.124	3.536	—	—	—
26	—	0.100	1.268	-5.438	—	-0.859	—
27	0.496	2.734	0.090	-0.684	—	—	—
28	—	0.675	-6.243	-4.243	—	2.790	—
29	69.404	-29.251	-76.952	32.701	—	—	—
30	—	-3.941	-1.379	0.000	—	—	52.864
31	—	7.989	-6.451	0.367	—	-8.735	—
32	-2.214	—	2.679	-10.464	—	—	-5.574
33	—	2.821	3.075	4.367	—	-6.309	—
34	—	-2.699	5.725	4.892	-2.068	—	—