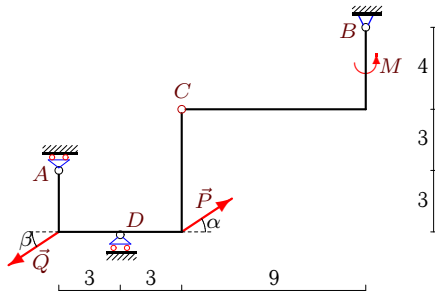


Составная прямоугольная рама

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

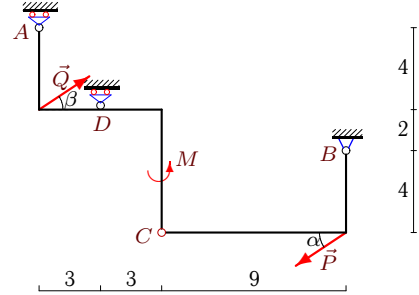
Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.:ФИЗМАТЛИТ, 2008.– 384 с. (с.54.)

Задача 8.1.



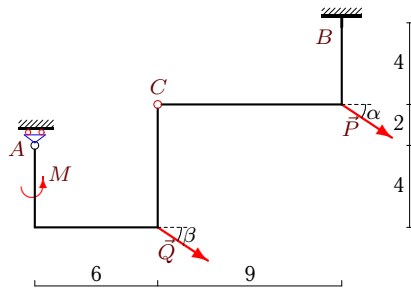
$P=4\text{кН}$, $Q=5\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=8\text{ кНм}$.

Задача 8.2.



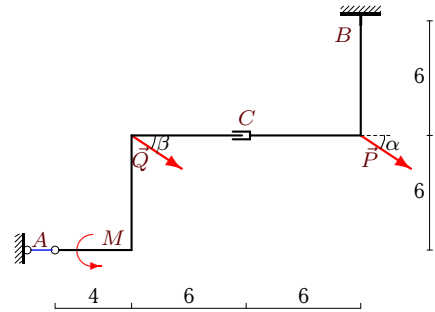
$P=6\text{кН}$, $Q=5\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=1\text{ кНм}$.

Задача 8.3.



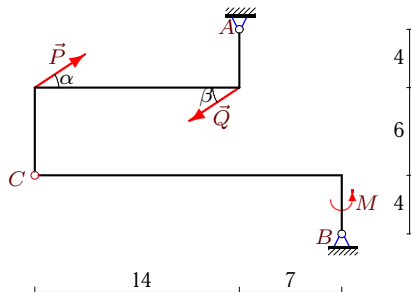
$P=7\text{кН}$, $Q=3\text{кН}$, $\alpha=45^\circ$, $\beta=60^\circ$, $M=4\text{ кНм}$.

Задача 8.4.



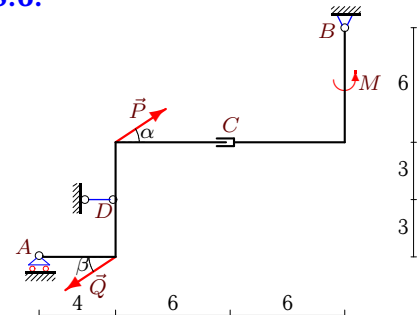
$P=8\text{кН}$, $Q=7\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=3\text{ кНм}$.

Задача 8.5.



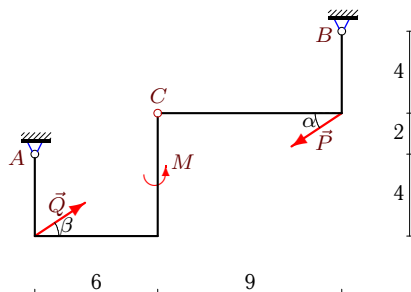
$P=2\text{кН}$, $Q=6\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=7\text{ кНм}$.

Задача 8.6.



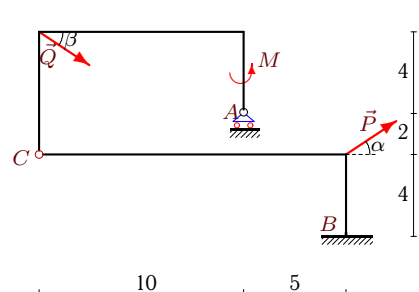
$P=5\text{кН}$, $Q=2\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=4\text{ кНм}$.

Задача 8.7.



$P=4\text{кН}$, $Q=5\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=2\text{ кНм}$.

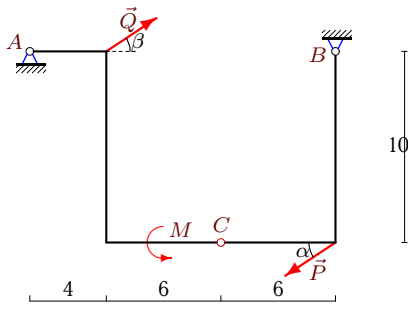
Задача 8.8.



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

Задача 8.9.

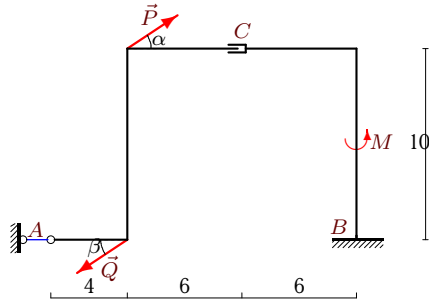
10



$P=4\text{кН}$, $Q=8\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=4\text{ кНм}$.

Задача 8.11.

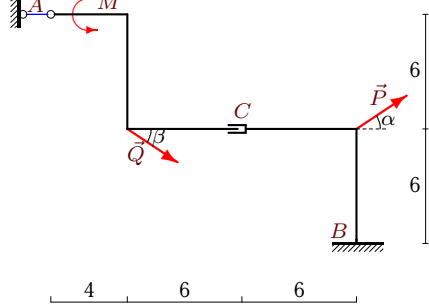
10



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

Задача 8.13.

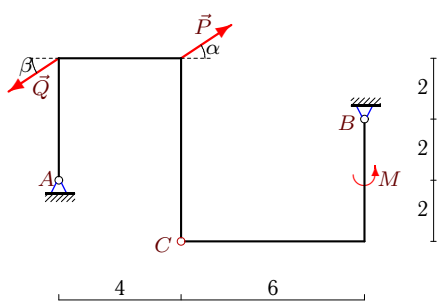
10



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

Задача 8.15.

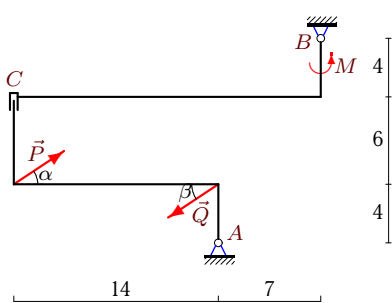
10



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

Задача 8.17.

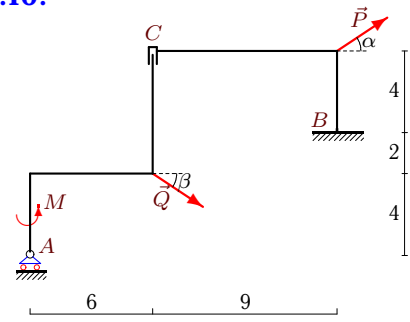
10



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

Задача 8.10.

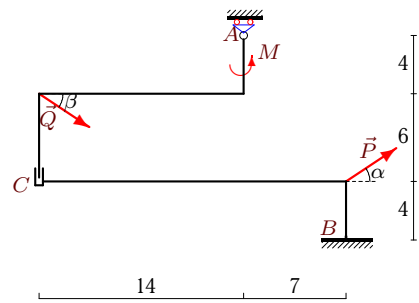
10



$P=8\text{кН}$, $Q=4\text{кН}$, $\alpha=45^\circ$, $\beta=60^\circ$, $M=1\text{ кНм}$.

Задача 8.12.

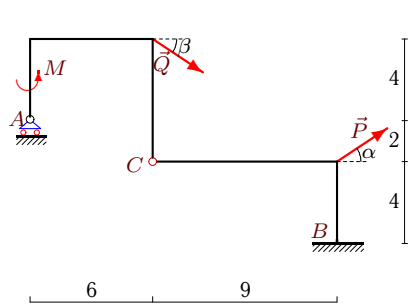
10



$P=8\text{кН}$, $Q=1\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=4\text{ кНм}$.

Задача 8.14.

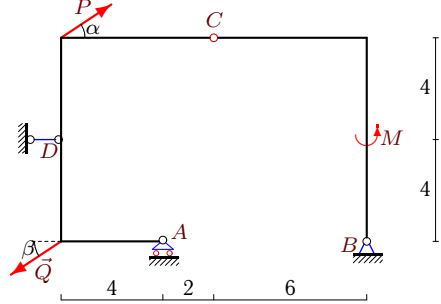
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$P=7\text{кН}$, $Q=8\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=6\text{ кНм}$.

Задача 8.16.

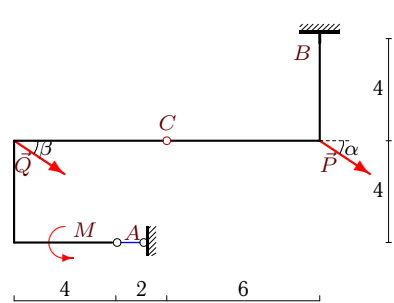
10



$P=4\text{кН}$, $Q=7\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=6\text{ кНм}$.

Задача 8.18.

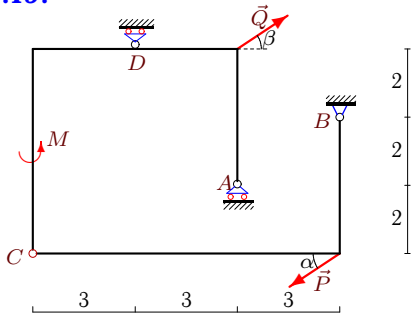
10



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

Задача 8.19.

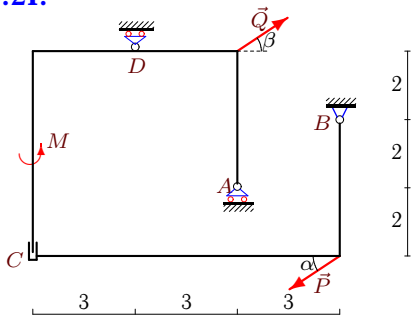
10



$P=6\text{кН}$, $Q=7\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=2\text{ кНм}$.

Задача 8.21.

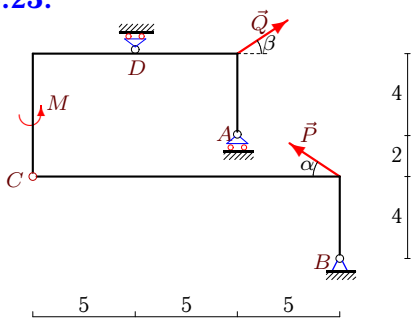
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$P=7\text{кН}$, $Q=5\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=4\text{ кНм}$.

Задача 8.23.

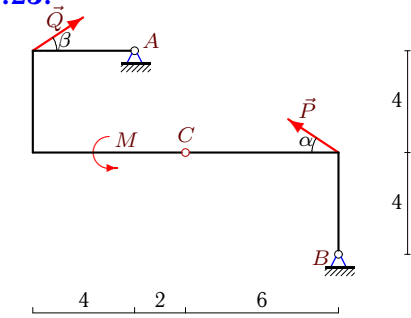
10



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

Задача 8.25.

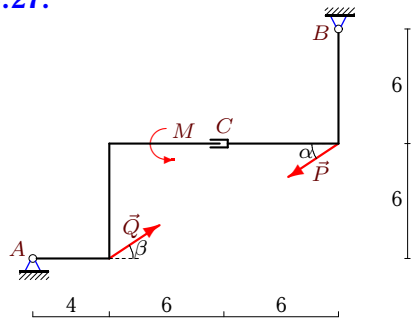
10



$P=4\text{кН}$, $Q=7\text{кН}$, $\alpha=45^\circ$, $\beta=60^\circ$, $M=6\text{ кНм}$.

Задача 8.27.

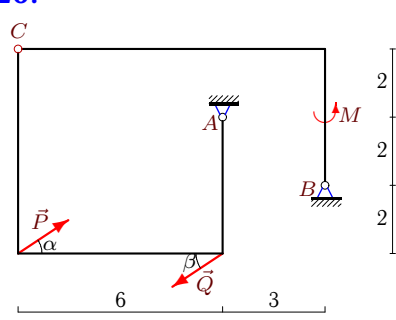
10



$P=5\text{кН}$, $Q=1\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=6\text{ кНм}$.

Задача 8.20.

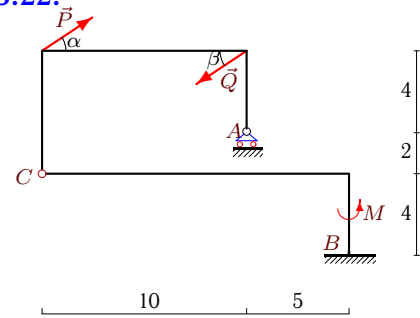
10



$P=2\text{кН}$, $Q=4\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=2\text{ кНм}$.

Задача 8.22.

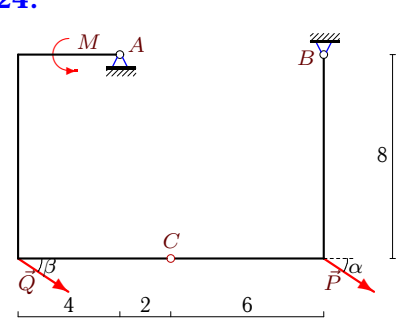
10



$P=6\text{кН}$, $Q=6\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=9\text{ кНм}$.

Задача 8.24.

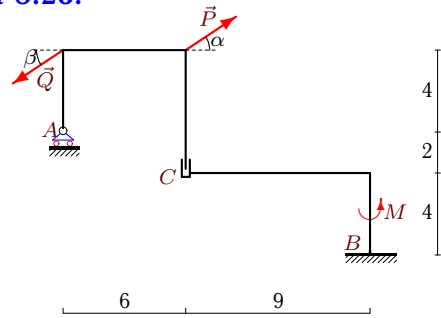
10



$P=3\text{кН}$, $Q=2\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=6\text{ кНм}$.

Задача 8.26.

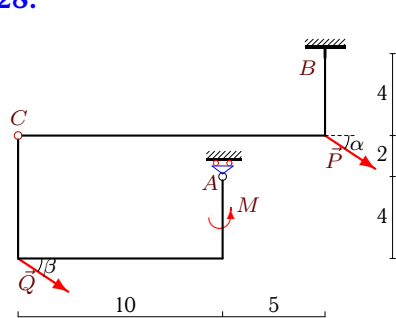
10



$P=7\text{кН}$, $Q=8\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=1\text{ кНм}$.

Задача 8.28.

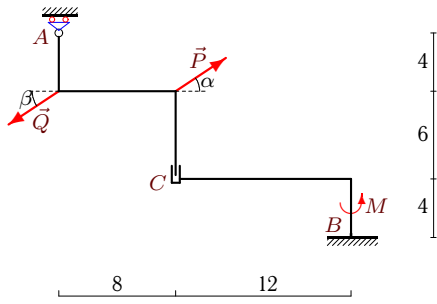
10



$P=7\text{кН}$, $Q=3\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=8\text{ кНм}$.

Задача 8.29.

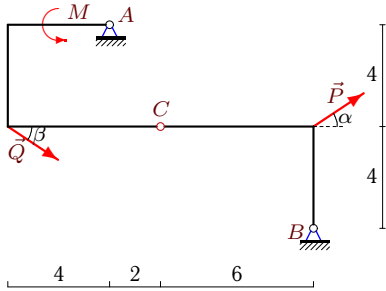
10



$P=7\text{кН}$, $Q=1\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=8\text{ кНм}$.

Задача 8.31.

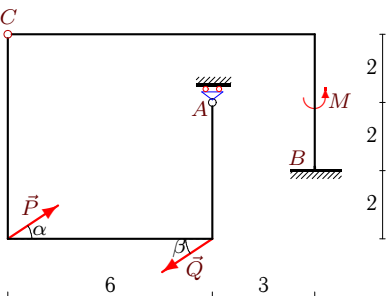
10



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

Задача 8.33.

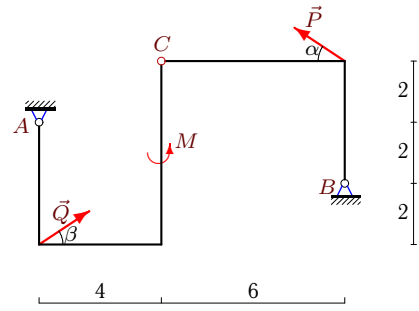
10



$P=6\text{кН}$, $Q=7\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=7\text{ кНм}$.

Задача 8.30.

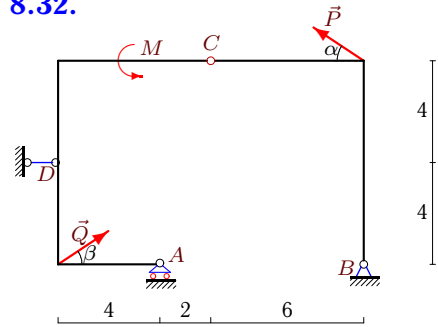
10



$P=4\text{кН}$, $Q=1\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=8\text{ кНм}$.

Задача 8.32.

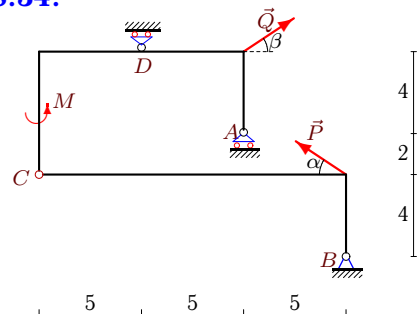
10



$P=6\text{кН}$, $Q=3\text{кН}$, $\alpha=45^\circ$, $\beta=60^\circ$, $M=2\text{ кНм}$.

Задача 8.34.

10



$P=6\text{кН}$, $Q=9\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=5\text{ кНм}$.

Составная прямоугольная рама

	X_A	Y_A	X_B	Y_B	X_D	Y_D	M_B
1	—	6.941	-0.964	-1.317	—	-3.293	—
2	—	-10.866	-0.087	4.204	—	8.405	—
3	—	2.167	-6.450	5.381	—	—	-29.682
4	-6.062	—	-4.000	10.428	—	—	-32.627
5	0.673	3.333	2.570	-0.823	—	—	—
6	—	-2.639	0.000	0.104	-1.803	—	—
7	32.651	13.047	-34.981	-12.083	—	—	—
8	—	0.120	-5.816	-4.569	—	—	17.557
9	-4.928	-4.000	0.000	3.464	—	—	—
10	—	3.464	-7.657	-5.657	—	—	38.412
11	-2.562	—	0.000	2.562	—	—	26.876
12	—	0.500	-4.866	-6.928	—	—	13.660
13	-2.828	—	-4.000	-4.100	—	—	-34.912
14	—	-4.657	-9.157	4.252	—	—	-56.196
15	5.485	4.132	-2.569	-3.046	—	—	—
16	—	2.341	-2.041	1.722	2.077	—	—
17	3.311	-1.098	-2.213	0.000	—	—	—
18	-10.343	—	0.781	9.562	—	—	-33.249
19	—	7.149	-1.820	3.434	—	-9.840	—
20	-8.340	6.512	8.608	-4.048	—	—	—
21	—	4.086	3.562	3.500	—	-8.416	—
22	—	3.497	1.243	-4.451	—	—	52.788
23	—	0.340	1.268	-5.534	—	-1.002	—
24	0.313	6.946	-3.911	-3.714	—	—	—
25	-11.757	1.328	11.086	-10.219	—	—	—
26	—	2.157	-0.405	0.000	—	—	-17.947
27	-0.866	-1.326	3.536	4.361	—	—	—
28	—	-2.359	-7.548	8.809	—	—	-88.074
29	—	-5.562	-2.634	0.000	—	—	-30.158
30	-1.706	1.946	3.669	-5.274	—	—	—
31	4.552	-4.603	-8.405	3.482	—	—	—
32	—	0.318	2.187	-7.158	0.556	—	—
33	—	4.703	-0.246	-2.754	—	—	18.768
34	—	0.584	-1.168	-2.689	—	-7.260	—