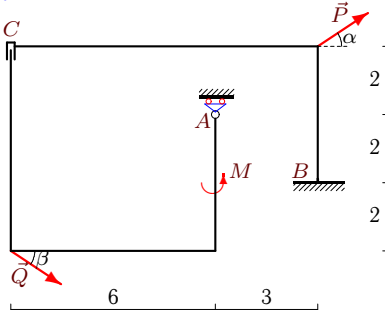


Составная прямоугольная рама

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

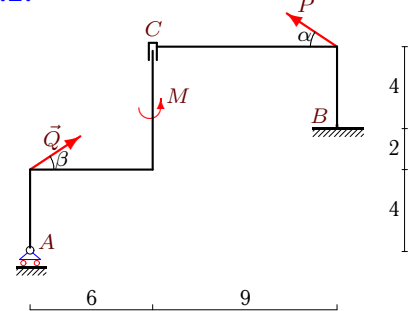
Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.:ФИЗМАТЛИТ, 2008.– 384 с. (с.54.)

Задача 8.1.



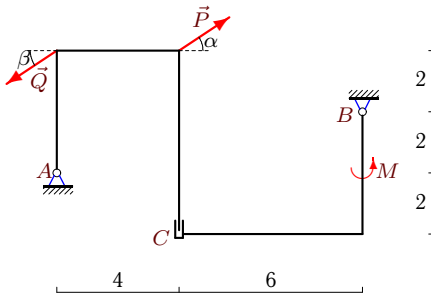
$P=8\text{кН}$, $Q=8\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=2\text{ кНм}$.

Задача 8.2.



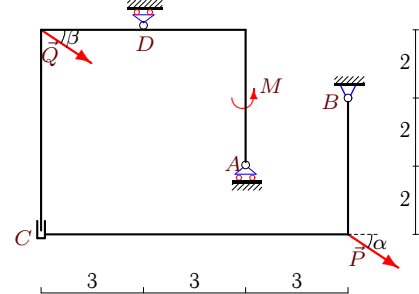
$P=9\text{кН}$, $Q=1\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=1\text{ кНм}$.

Задача 8.3.



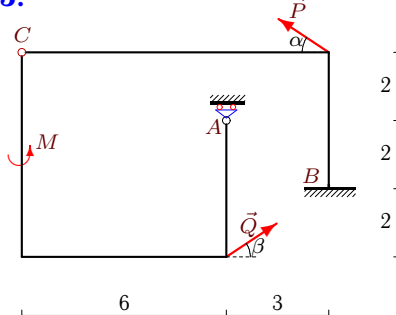
$P=3\text{кН}$, $Q=6\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=9\text{ кНм}$.

Задача 8.4.



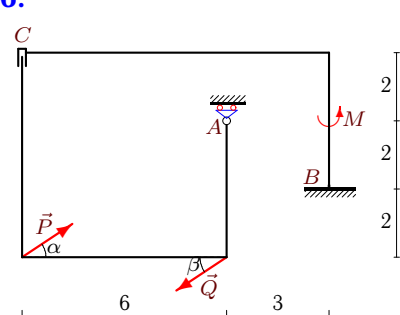
$P=6\text{кН}$, $Q=8\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=1\text{ кНм}$.

Задача 8.5.



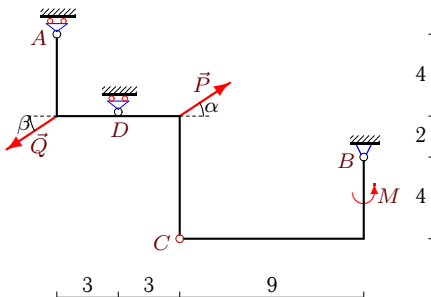
$P=8\text{кН}$, $Q=9\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=8\text{ кНм}$.

Задача 8.6.



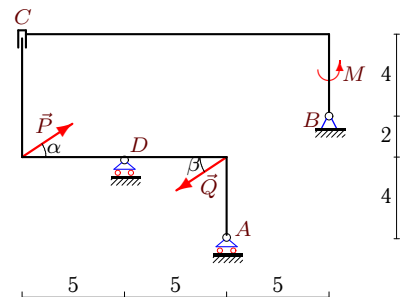
$P=7\text{кН}$, $Q=5\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=7\text{ кНм}$.

Задача 8.7.



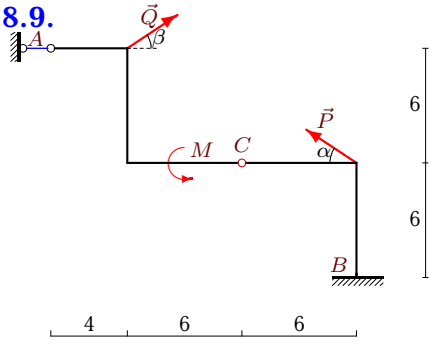
$P=4\text{кН}$, $Q=8\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=6\text{ кНм}$.

Задача 8.8.



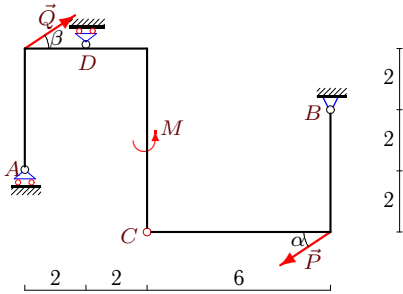
$P=5\text{кН}$, $Q=1\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=6\text{ кНм}$.

Задача 8.9.



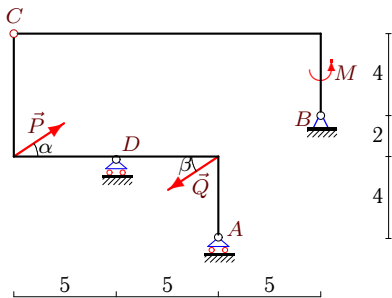
$P=8\text{кН}$, $Q=5\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=9\text{кНм}$.

Задача 8.11.



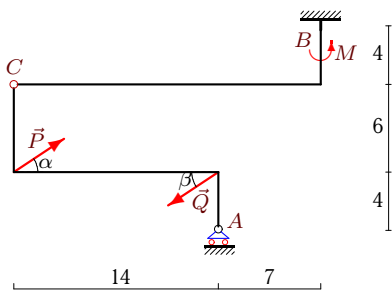
$P=6\text{кН}$, $Q=6\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=1\text{кНм}$.

Задача 8.13.



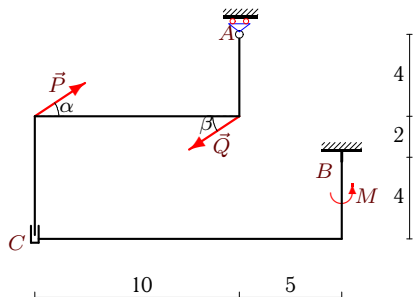
$P=4\text{кН}$, $Q=2\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=1\text{кНм}$.

Задача 8.15.



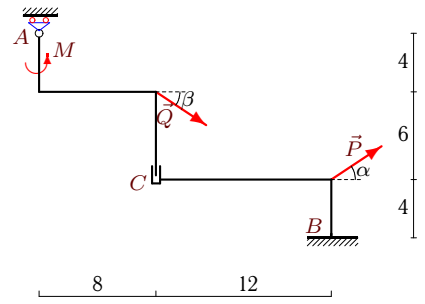
$P=6\text{кН}$, $Q=1\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=4\text{кНм}$.

Задача 8.17.



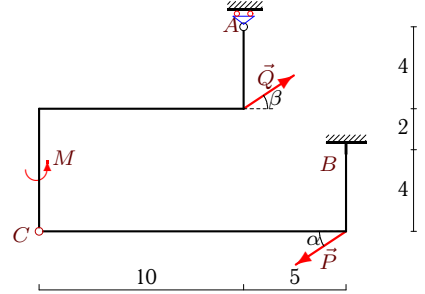
$P=7\text{кН}$, $Q=4\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=7\text{кНм}$.

Задача 8.10.



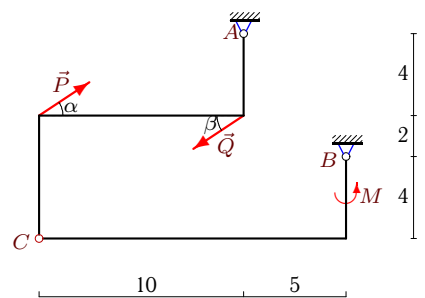
$P=8\text{кН}$, $Q=2\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=4\text{кНм}$.

Задача 8.12.



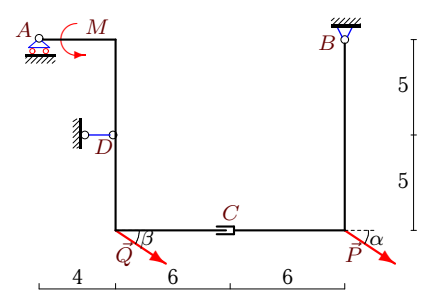
$P=8\text{кН}$, $Q=6\text{кН}$, $\alpha=30^\circ$, $\beta=60^\circ$, $M=6\text{кНм}$.

Задача 8.14.



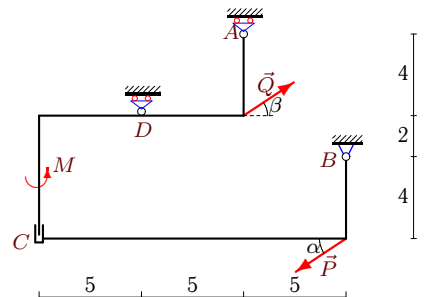
$P=2\text{кН}$, $Q=5\text{кН}$, $\alpha=45^\circ$, $\beta=60^\circ$, $M=1\text{кНм}$.

Задача 8.16.



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

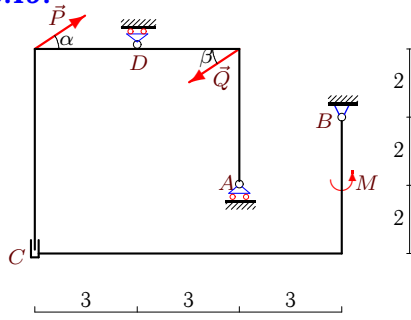
Задача 8.18.



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

Задача 8.19.

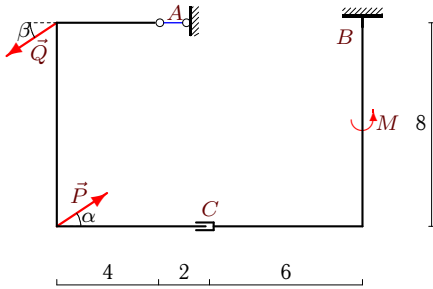
7



$P=5\text{кН}$, $Q=4\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=9\text{ кНм}$.

Задача 8.21.

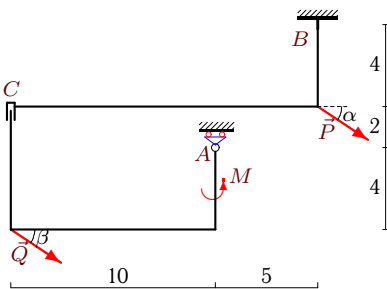
7



$P=7\text{кН}$, $Q=9\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=2\text{ кНм}$.

Задача 8.23.

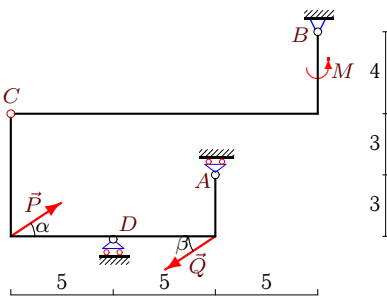
7



$P=8\text{кН}$, $Q=2\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=9\text{ кНм}$.

Задача 8.25.

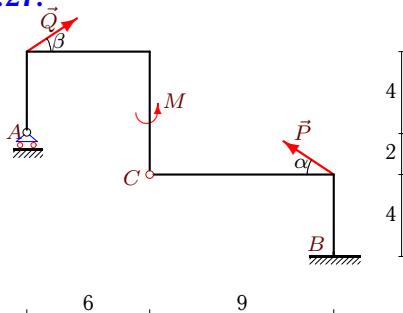
7



$P=4\text{кН}$, $Q=9\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=2\text{ кНм}$.

Задача 8.27.

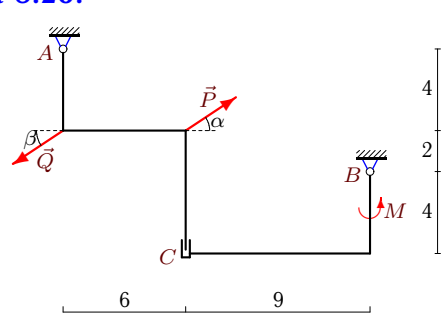
7



$P=8\text{кН}$, $Q=9\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=6\text{ кНм}$.

Задача 8.20.

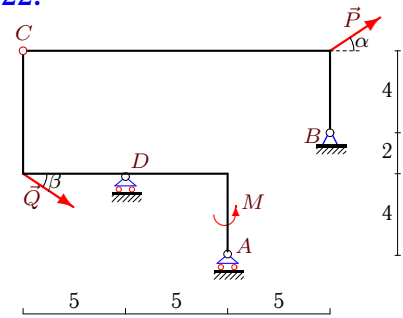
7



$P=3\text{кН}$, $Q=2\text{кН}$, $\alpha=60^\circ$, $\beta=30^\circ$, $M=9\text{ кНм}$.

Задача 8.22.

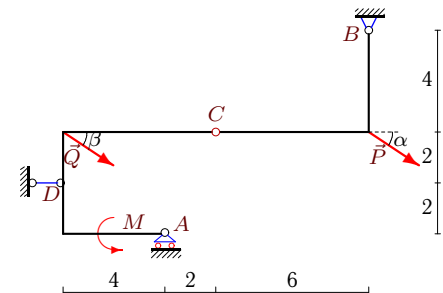
7



$P=5\text{кН}$, $Q=6\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=8\text{ кНм}$.

Задача 8.24.

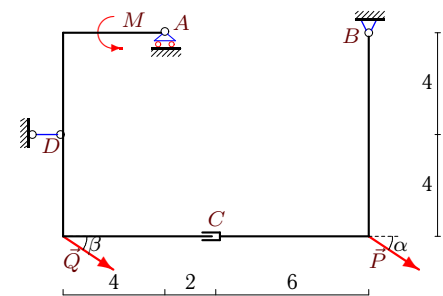
7



$P=5\text{кН}$, $Q=4\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=7\text{ кНм}$.

Задача 8.26.

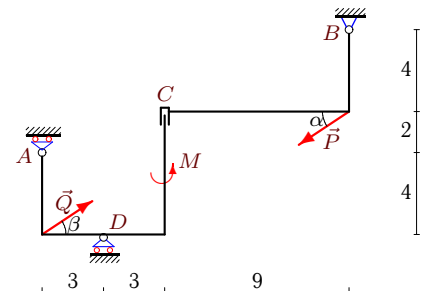
7



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

Задача 8.28.

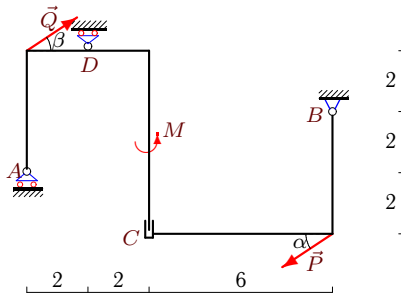
7



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

Задача 8.29.

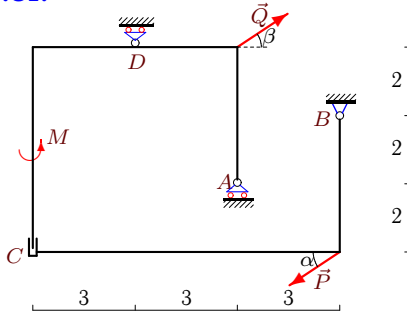
7



$P=7\text{кН}$, $Q=2\text{кН}$, $\alpha=45^\circ$, $\beta=30^\circ$, $M=4\text{ кНм}$.

Задача 8.31.

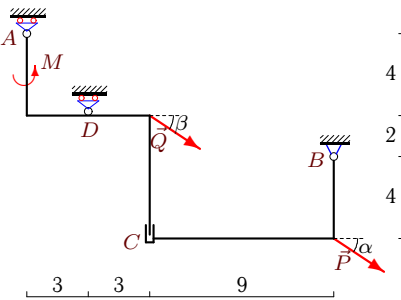
7



$P=7\text{кН}$, $Q=6\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=4\text{ кНм}$.

Задача 8.33.

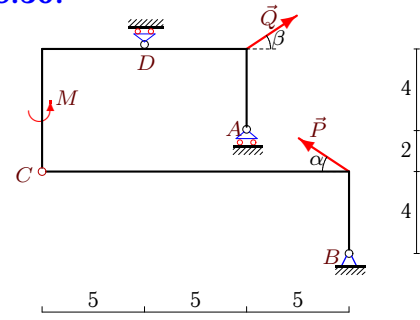
7



$P=6\text{кН}$, $Q=5\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=3\text{ кНм}$.

Задача 8.30.

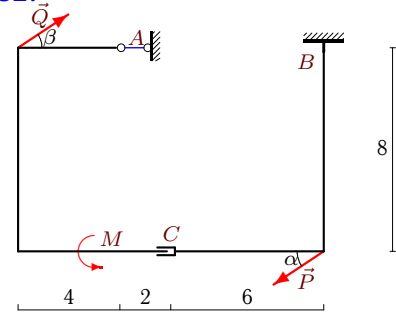
7



$P=6\text{кН}$, $Q=2\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=9\text{ кНм}$.

Задача 8.32.

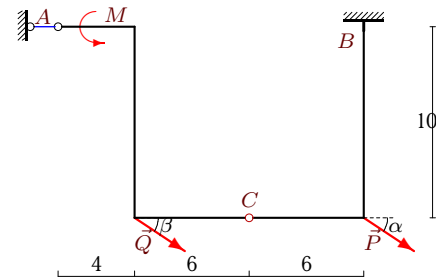
7



$P=9\text{кН}$, $Q=7\text{кН}$, $\alpha=30^\circ$, $\beta=45^\circ$, $M=3\text{ кНм}$.

Задача 8.34.

7



$P=7\text{кН}$, $Q=6\text{кН}$, $\alpha=60^\circ$, $\beta=45^\circ$, $M=1\text{ кНм}$.

Составная прямоугольная рама

	X_A	Y_A	X_B	Y_B	X_D	Y_D	M_B
1	—	5.657	-9.657	-6.928	—	—	-31.255
2	—	-0.500	3.634	-7.794	—	—	-20.732
3	-13.392	0.402	17.088	0.000	—	—	—
4	—	-9.147	-10.853	3.000	—	14.804	—
5	—	-14.061	-2.364	0.769	—	—	-59.820
6	—	-3.562	0.830	0.000	—	—	31.033
7	—	17.393	3.657	0.959	—	-16.159	—
8	—	2.977	-1.634	0.000	—	-6.807	—
9	-5.330	—	5.000	-9.428	—	—	-15.000
10	—	1.732	-7.928	-4.000	—	—	47.569
11	—	-12.232	2.196	4.464	—	5.572	—
12	—	-3.996	3.928	2.800	—	—	33.713
13	—	1.366	-2.464	0.590	—	-2.224	—
14	-1.344	2.335	2.430	0.581	—	—	—
15	—	-1.217	-4.489	-1.076	—	—	0.642
16	—	9.325	-5.196	-0.263	-3.500	—	—
17	—	-0.672	-3.234	0.000	—	—	34.468
18	—	2.453	3.218	4.950	—	-3.453	—
19	—	3.330	-1.502	0.000	—	-3.001	—
20	4.175	-1.598	-3.943	0.000	—	—	—
21	2.844	—	0.000	-0.450	—	—	-36.201
22	—	-8.648	-8.573	-0.214	—	10.604	—
23	—	1.000	-5.732	6.928	—	—	-52.321
24	—	-1.168	5.995	6.497	-13.153	—	—
25	—	14.478	4.966	1.191	—	-13.998	—
26	—	7.495	-5.196	-3.629	-0.500	—	—
27	—	-11.728	-2.364	-1.564	—	—	-38.820
28	—	11.199	-2.157	6.062	—	-16.856	—
29	—	-10.632	3.218	4.950	—	9.632	—
30	—	-1.940	1.586	-5.619	—	0.949	—
31	—	5.335	1.820	3.500	—	-9.578	—
32	-4.950	—	7.794	-0.450	—	—	118.751
33	—	-0.893	-6.536	5.196	—	4.428	—
34	2.646	—	-10.388	10.305	—	—	-129.338