

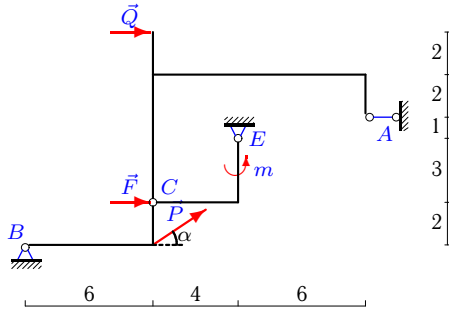
Составная конструкция 3 тел

Определить реакции опор конструкции (в кН), состоящей из трех тел, соединенных в точке C шарниром. Размеры указаны в метрах.

Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.:ФИЗМАТЛИТ, 2008.– 384 с. (с.67.)

Задача 16.1.

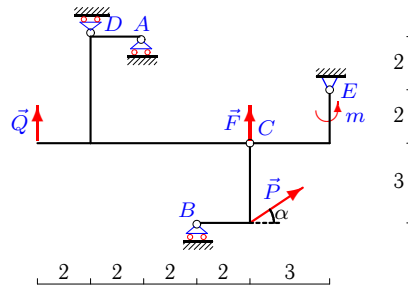
8



$P = 9$ кН, $Q = 8$ кН, $F = 1$ кН,
 $m = 3$ кНм, $\alpha = 30^\circ$.

Задача 16.2.

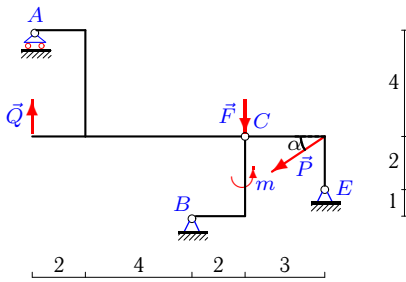
8



$P = 1$ кН, $Q = 6$ кН, $F = 6$ кН,
 $m = 3$ кНм, $\alpha = 30^\circ$.

Задача 16.3.

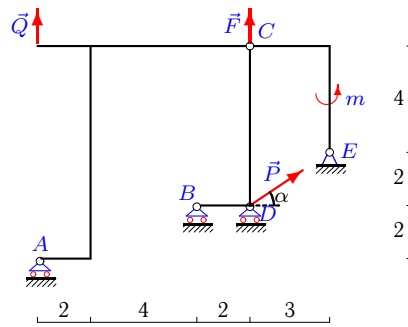
8



$P = 8$ кН, $Q = 8$ кН, $F = 1$ кН,
 $m = 5$ кНм, $\alpha = 30^\circ$.

Задача 16.4.

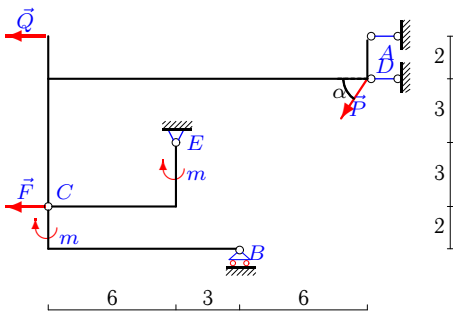
8



$P = 4$ кН, $Q = 6$ кН, $F = 4$ кН,
 $m = 5$ кНм, $\alpha = 30^\circ$.

Задача 16.5.

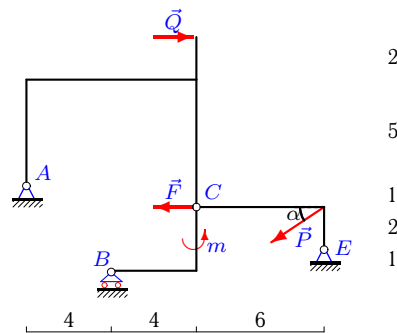
8



$P = 1$ кН, $Q = 2$ кН, $F = 6$ кН,
 $m = 4$ кНм, $\alpha = 60^\circ$.

Задача 16.6.

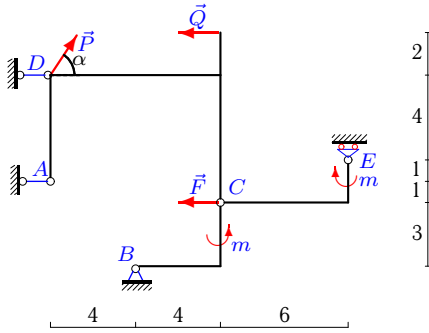
8



$P = 7$ кН, $Q = 3$ кН, $F = 2$ кН,
 $m = 5$ кНм, $\alpha = 30^\circ$.

Задача 16.7.

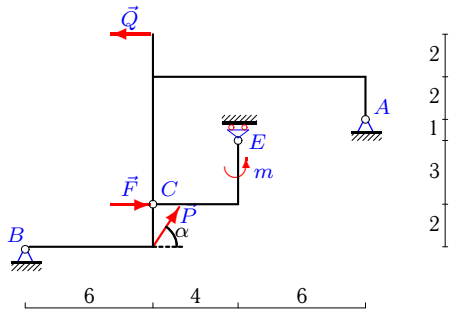
8



$P = 7 \text{ кН}, Q = 3 \text{ кН}, F = 8 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.9.

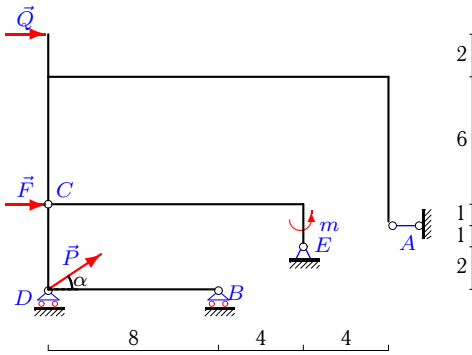
8



$P = 5 \text{ кН}, Q = 7 \text{ кН}, F = 3 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.11.

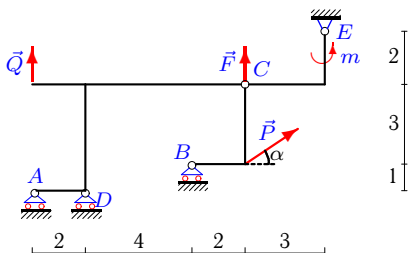
8



$P = 9 \text{ кН}, Q = 4 \text{ кН}, F = 4 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.13.

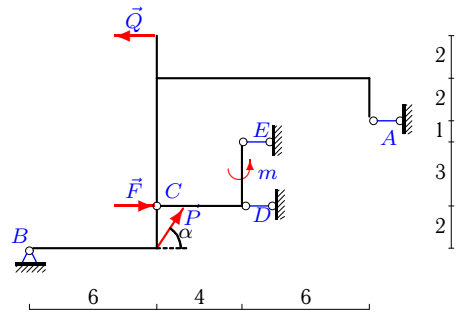
8



$P = 3 \text{ кН}, Q = 3 \text{ кН}, F = 6 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.8.

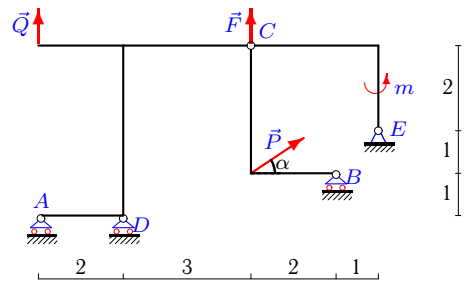
8



$P = 9 \text{ кН}, Q = 2 \text{ кН}, F = 5 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.10.

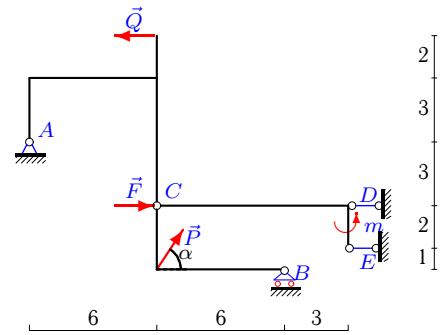
8



$P = 5 \text{ кН}, Q = 6 \text{ кН}, F = 6 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.12.

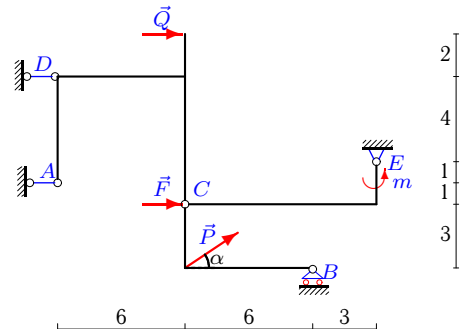
8



$P = 2 \text{ кН}, Q = 2 \text{ кН}, F = 7 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.14.

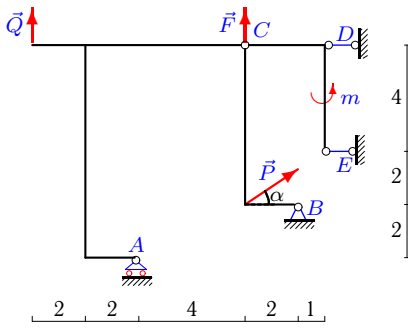
8



$P = 3 \text{ кН}, Q = 4 \text{ кН}, F = 6 \text{ кН},$
 $m = 4 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.15.

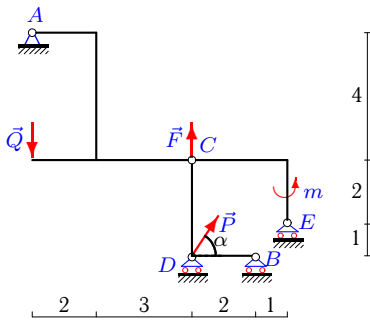
8



$P = 2 \text{ кН}, Q = 6 \text{ кН}, F = 5 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.17.

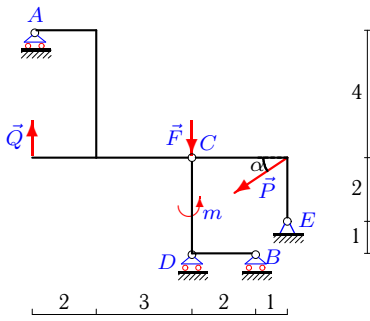
8



$P = 2 \text{ кН}, Q = 3 \text{ кН}, F = 9 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.19.

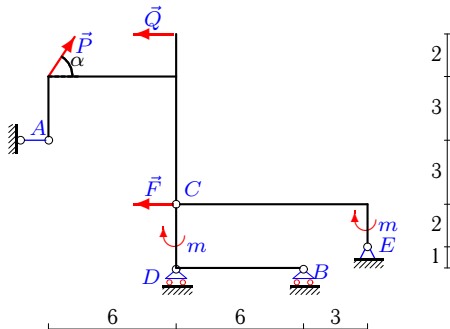
8



$P = 8 \text{ кН}, Q = 4 \text{ кН}, F = 4 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.21.

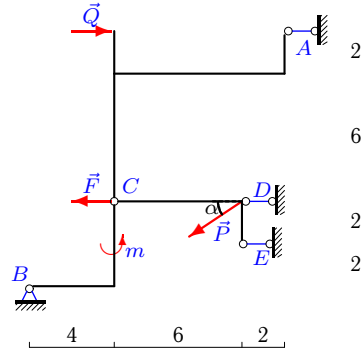
8



$P = 1 \text{ кН}, Q = 6 \text{ кН}, F = 4 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.16.

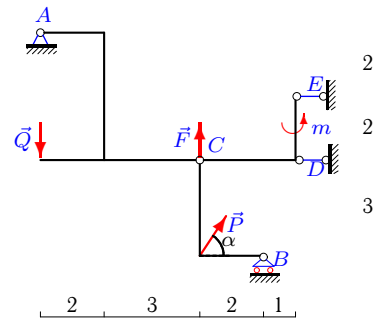
8



$P = 8 \text{ кН}, Q = 1 \text{ кН}, F = 5 \text{ кН},$
 $m = 5 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.18.

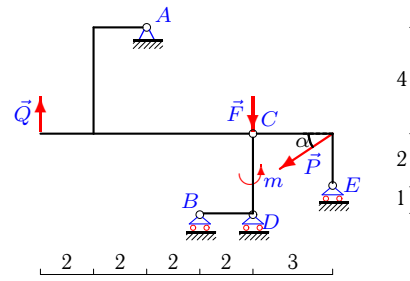
8



$P = 8 \text{ кН}, Q = 7 \text{ кН}, F = 7 \text{ кН},$
 $m = 4 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.20.

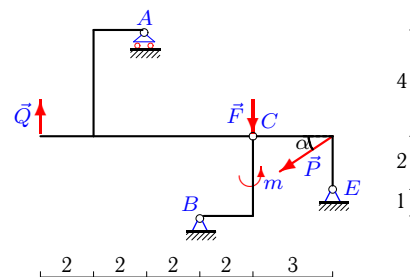
8



$P = 8 \text{ кН}, Q = 8 \text{ кН}, F = 9 \text{ кН},$
 $m = 5 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.22.

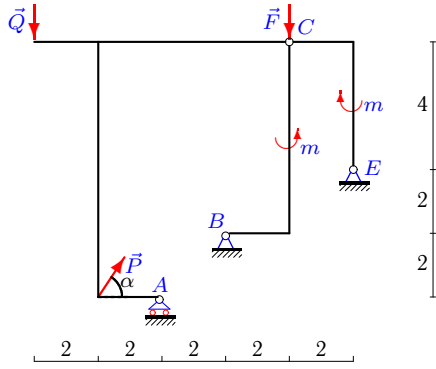
8



$P = 3 \text{ кН}, Q = 8 \text{ кН}, F = 1 \text{ кН},$
 $m = 5 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.23.

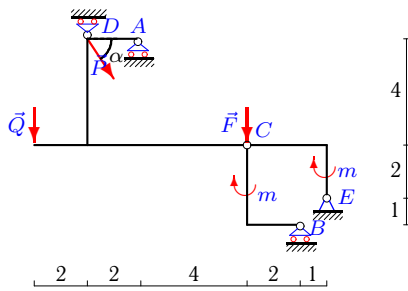
8



$P = 7 \text{ кН}, Q = 1 \text{ кН}, F = 1 \text{ кН},$
 $m = 5 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.25.

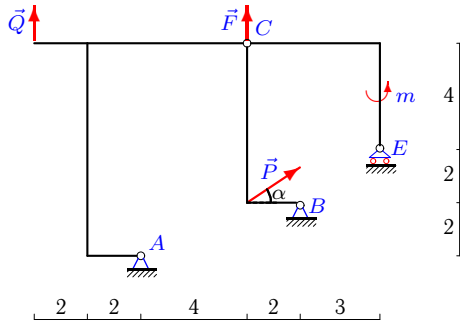
8



$P = 6 \text{ кН}, Q = 7 \text{ кН}, F = 6 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 60^\circ.$

Задача 16.27.

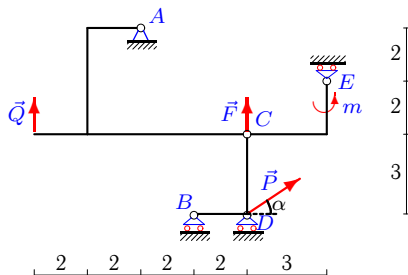
8



$P = 5 \text{ кН}, Q = 5 \text{ кН}, F = 3 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.29.

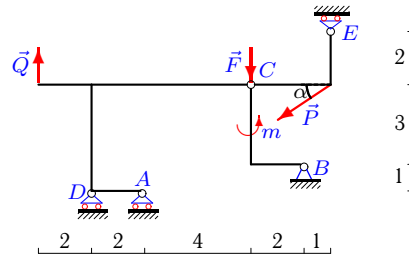
8



$P = 8 \text{ кН}, Q = 9 \text{ кН}, F = 9 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.24.

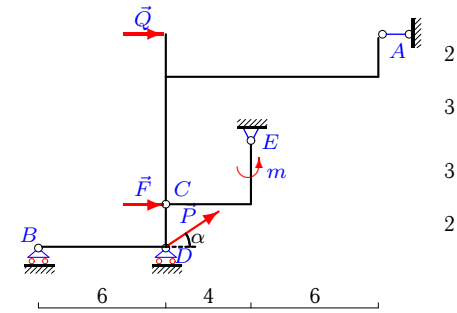
8



$P = 2 \text{ кН}, Q = 3 \text{ кН}, F = 8 \text{ кН},$
 $m = 4 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.26.

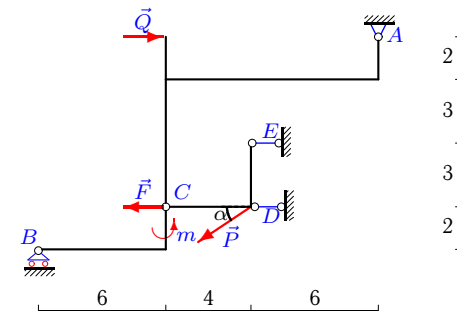
8



$P = 7 \text{ кН}, Q = 3 \text{ кН}, F = 4 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.28.

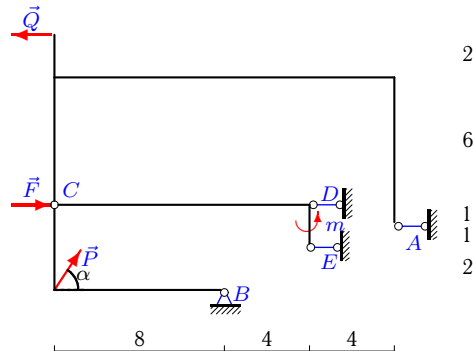
8



$P = 3 \text{ кН}, Q = 8 \text{ кН}, F = 7 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

Задача 16.30.

8



$P = 9 \text{ кН}, Q = 4 \text{ кН}, F = 5 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 60^\circ.$

Составная конструкция 3 тел

№	X_A	Y_A	X_B	Y_B	X_E	Y_E	X_D	Y_D
1	-16.000	—	13.805	7.200	-14.600	-11.700	—	—
2	—	-12.665	—	1.299	-0.866	-1.577	—	0.443
3	—	-8.000	1.439	4.659	5.488	0.340	—	—
4	—	-6.000	—	10.392	-3.464	2.952	—	-19.344
5	-23.965	—	—	0.444	-0.490	0.421	32.955	—
6	16.499	-5.062	—	1.250	-11.437	7.312	—	—
7	29.799	—	-9.749	-6.562	—	0.500	-12.549	—
8	4.000	—	-27.882	-7.794	1.000	—	15.382	—
9	10.298	-1.480	-8.798	-2.099	—	-0.750	—	—
10	—	-1.662	—	-6.495	-4.330	0.886	—	-7.228
11	32.000	—	—	-3.897	-47.794	7.465	—	-8.068
12	7.797	-1.232	—	-0.500	-3.000	—	-10.797	—
13	—	22.995	—	3.897	-2.598	-2.732	—	-34.660
14	-10.032	—	—	-1.299	1.095	-0.201	-3.661	—
15	—	-12.000	-1.732	0.000	-1.500	—	1.500	—
16	-1.000	—	2.750	4.000	12.000	—	-2.821	—
17	-1.000	3.800	—	-1.500	—	-2.000	—	-8.032
18	9.910	-0.928	—	-6.000	2.000	—	-15.910	—
19	—	-4.000	—	-3.000	6.928	-0.618	—	11.618
20	6.928	-22.928	—	2.500	—	4.000	—	21.428
21	13.267	—	—	1.000	-3.767	1.504	—	-3.370
22	—	-16.000	3.799	8.199	-1.201	2.300	—	—
23	—	-0.093	-3.193	-7.081	-0.306	3.112	—	—
24	—	40.794	1.732	-4.598	—	1.000	—	-31.196
25	—	-4.000	—	3.000	-3.000	4.000	—	15.196
26	-3.000	—	—	2.020	-10.062	-8.296	—	2.775
27	0.140	-9.720	-4.470	0.420	—	-1.200	—	—
28	-6.750	1.000	—	0.500	-2.000	—	10.348	—
29	-6.928	-11.071	—	10.392	—	-1.000	—	-20.320
30	-32.000	—	11.088	-7.794	-3.000	—	18.411	—