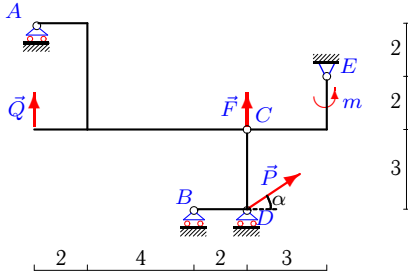


Составная конструкция 3 тел

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, 2002. – 384 с. (с. 67.)

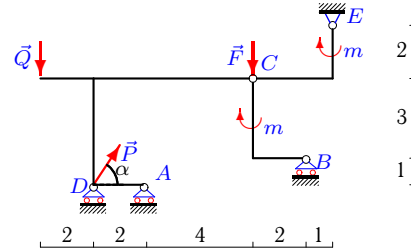
Задача 16.1



$P = 27$ кН, $Q = 21$ кН, $F = 4$ кН,
 $m = 3$ кНм, $\alpha = 30^\circ$.

16.1

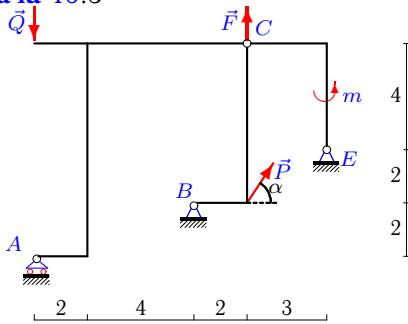
Задача 16.2



$P = 18$ кН, $Q = 1$ кН, $F = 6$ кН,
 $m = 4$ кНм, $\alpha = 60^\circ$.

16.1

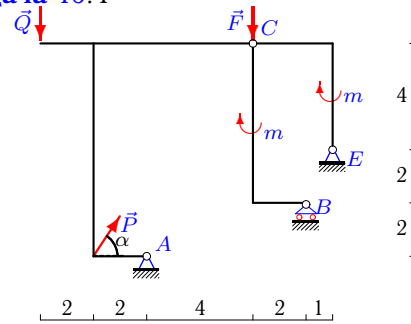
Задача 16.3



$P = 23$ кН, $Q = 24$ кН, $F = 1$ кН,
 $m = 5$ кНм, $\alpha = 60^\circ$.

16.1

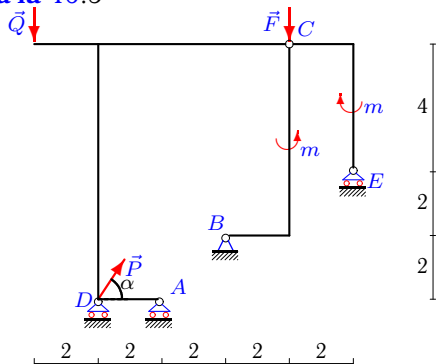
Задача 16.4



$P = 33$ кН, $Q = 31$ кН, $F = 2$ кН,
 $m = 6$ кНм, $\alpha = 60^\circ$.

16.1

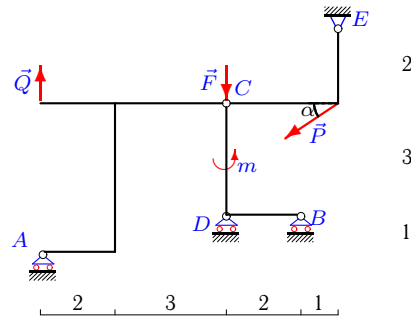
Задача 16.5



$P = 12$ кН, $Q = 21$ кН, $F = 8$ кН,
 $m = 5$ кНм, $\alpha = 60^\circ$.

16.1

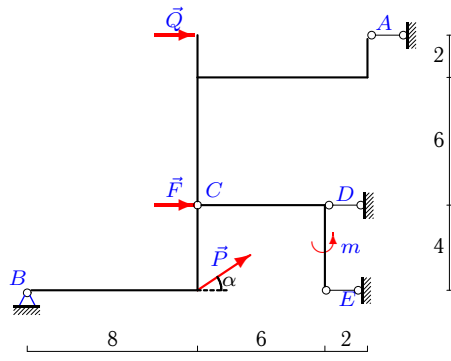
Задача 16.6



$P = 22$ кН, $Q = 31$ кН, $F = 4$ кН,
 $m = 4$ кНм, $\alpha = 30^\circ$.

16.1

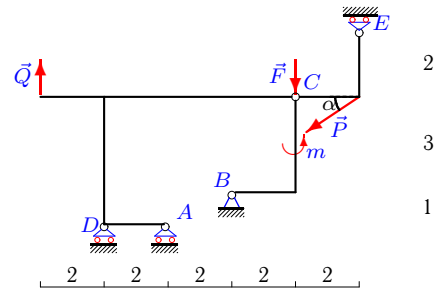
Задача 16.7



$P = 3 \text{ кН}, Q = 29 \text{ кН}, F = 5 \text{ кН},$
 $m = 5 \text{ кНМ}, \alpha = 30^\circ.$

16.1

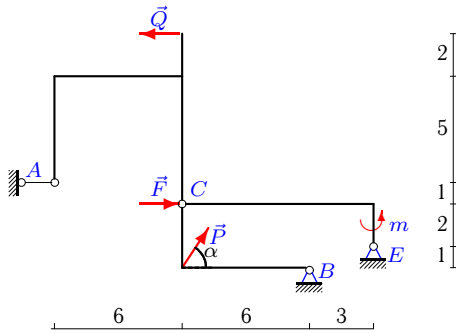
Задача 16.8



$P = 15 \text{ кН}, Q = 32 \text{ кН}, F = 8 \text{ кН},$
 $m = 3 \text{ кНМ}, \alpha = 30^\circ.$

16.1

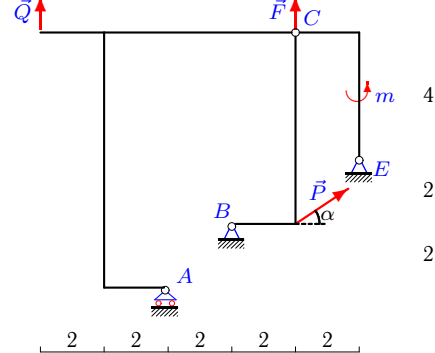
Задача 16.9



$P = 12 \text{ кН}, Q = 11 \text{ кН}, F = 1 \text{ кН},$
 $m = 6 \text{ кНМ}, \alpha = 60^\circ.$

16.1

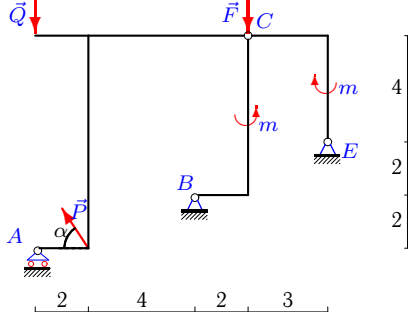
Задача 16.10



$P = 22 \text{ кН}, Q = 3 \text{ кН}, F = 1 \text{ кН},$
 $m = 5 \text{ кНМ}, \alpha = 30^\circ.$

16.1

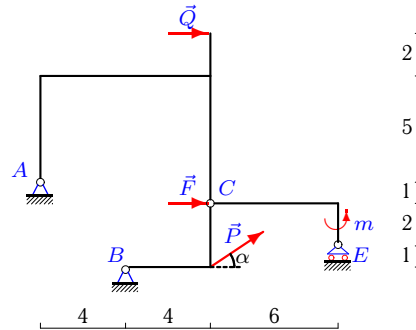
Задача 16.11



$P = 15 \text{ кН}, Q = 24 \text{ кН}, F = 1 \text{ кН},$
 $m = 5 \text{ кНМ}, \alpha = 60^\circ.$

16.1

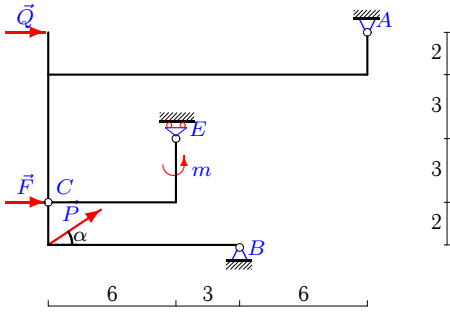
Задача 16.12



$P = 3 \text{ кН}, Q = 22 \text{ кН}, F = 3 \text{ кН},$
 $m = 5 \text{ кНМ}, \alpha = 30^\circ.$

16.1

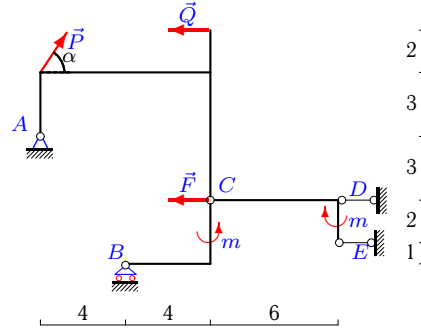
Задача 16.13



$P = 10 \text{ кН}, Q = 18 \text{ кН}, F = 3 \text{ кН},$
 $m = 4 \text{ кНм}, \alpha = 30^\circ.$

16.1

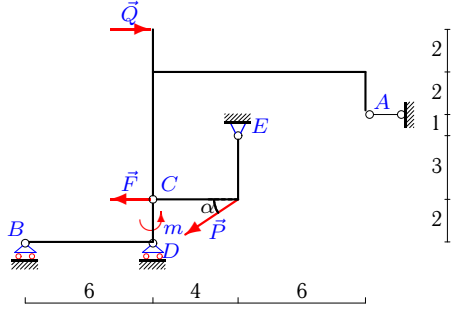
Задача 16.14



$P = 16 \text{ кН}, Q = 24 \text{ кН}, F = 7 \text{ кН},$
 $m = 5 \text{ кНм}, \alpha = 60^\circ.$

16.1

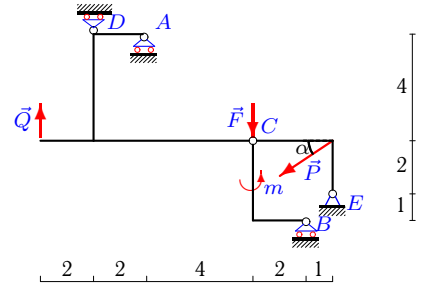
Задача 16.15



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

16.1

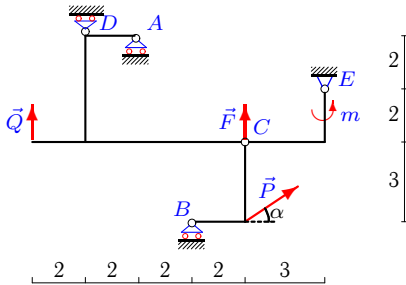
Задача 16.16



$P = 10 \text{ кН}, Q = 24 \text{ кН}, F = 6 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 30^\circ.$

16.1

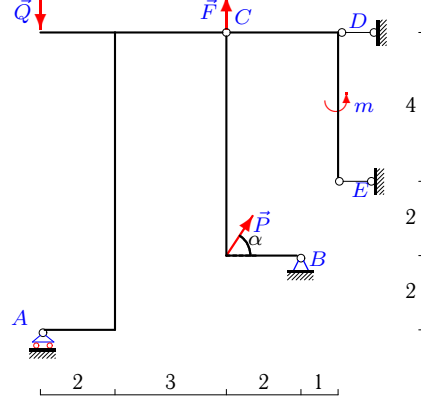
Задача 16.17



$P = 20 \text{ кН}, Q = 4 \text{ кН}, F = 6 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

16.1

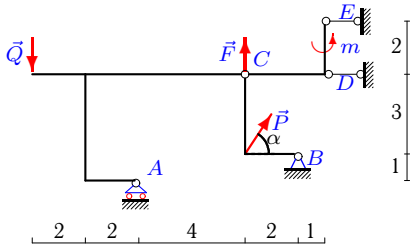
Задача 16.18



$P = 26 \text{ кН}, Q = 16 \text{ кН}, F = 5 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 60^\circ.$

16.1

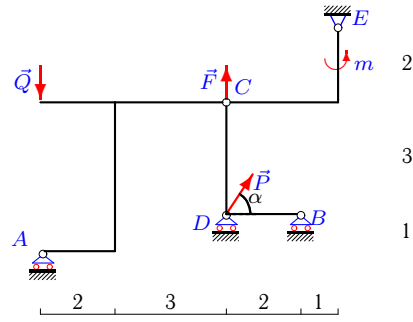
Задача 16.19



$P = 1 \text{ кН}, Q = 3 \text{ кН}, F = 5 \text{ кН},$
 $m = 4 \text{ кНм}, \alpha = 60^\circ.$

16.1

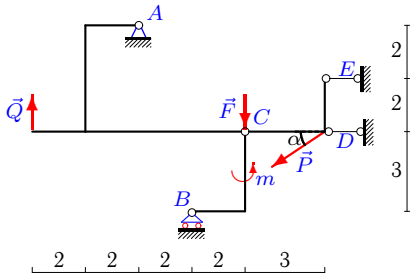
Задача 16.20



$P = 25 \text{ кН}, Q = 17 \text{ кН}, F = 4 \text{ кН},$
 $m = 4 \text{ кНм}, \alpha = 60^\circ.$

16.1

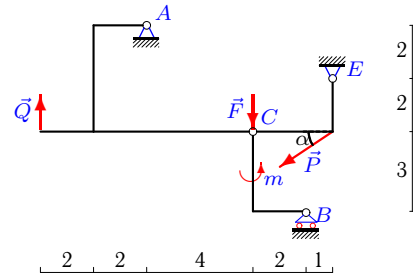
Задача 16.21



$P = 28 \text{ кН}, Q = 29 \text{ кН}, F = 7 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

16.1

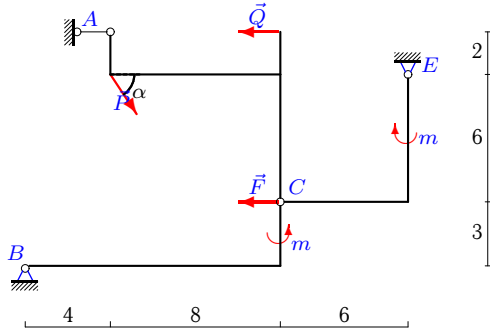
Задача 16.22



$P = 28 \text{ кН}, Q = 30 \text{ кН}, F = 2 \text{ кН},$
 $m = 4 \text{ кНм}, \alpha = 30^\circ.$

16.1

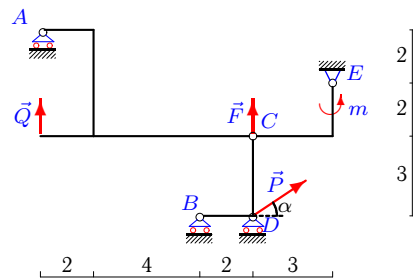
Задача 16.23



$P = 21 \text{ кН}, Q = 10 \text{ кН}, F = 1 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 60^\circ.$

16.1

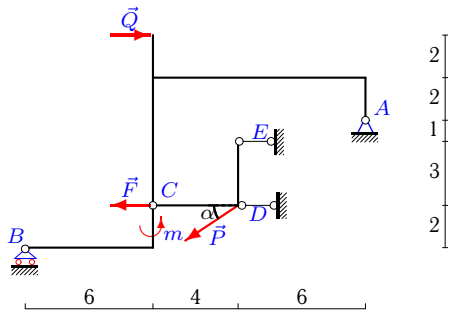
Задача 16.24



$P = 27 \text{ кН}, Q = 21 \text{ кН}, F = 4 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

16.1

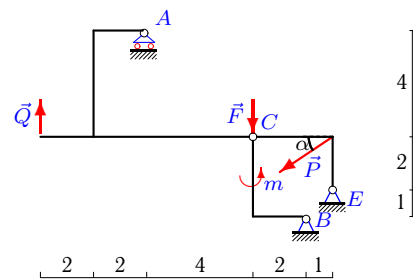
Задача 16.25



$P = 24 \text{ кН}, Q = 2 \text{ кН}, F = 7 \text{ кН},$
 $m = 3 \text{ кНм}, \alpha = 30^\circ.$

16.1

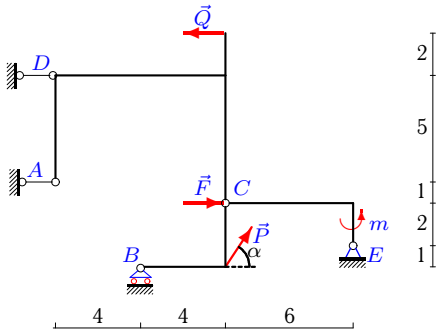
Задача 16.26



$P = 13 \text{ кН}, Q = 14 \text{ кН}, F = 1 \text{ кН},$
 $m = 6 \text{ кНм}, \alpha = 30^\circ.$

16.1

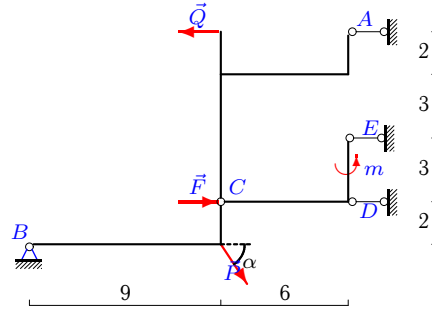
Задача 16.27



$P = 33$ кН, $Q = 14$ кН, $F = 6$ кН,
 $m = 5$ кНМ, $\alpha = 60^\circ$.

16.1

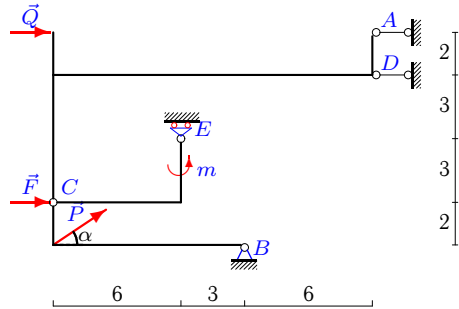
Задача 16.28



$P = 32$ кН, $Q = 3$ кН, $F = 5$ кН,
 $m = 3$ кНМ, $\alpha = 60^\circ$.

16.1

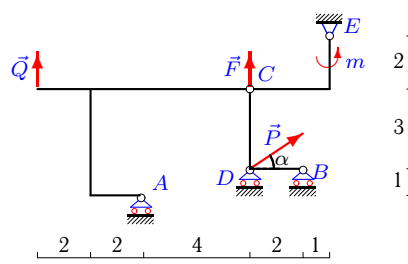
Задача 16.29



$P = 33$ кН, $Q = 18$ кН, $F = 8$ кН,
 $m = 4$ кНМ, $\alpha = 30^\circ$.

16.1

Задача 16.30



$P = 32$ кН, $Q = 1$ кН, $F = 4$ кН,
 $m = 4$ кНМ, $\alpha = 30^\circ$.

16.1

Составная конструкция 3 тел

№	X_A	Y_A	X_B	Y_B	X_E	Y_E	X_D	Y_D
1	—	-21.000	—	35.074	-23.382	-16.588	—	-35.985
2	—	7.000	—	2.000	-9.000	-4.666	—	-12.921
3	—	24.000	-15.942	-13.328	4.442	-7.590	—	—
4	-22.413	7.305	—	3.000	5.913	-5.884	—	—
5	—	18.000	-6.000	-15.500	—	2.500	—	13.607
6	—	-31.000	—	-2.000	19.052	23.701	—	-6.701
7	-29.000	—	-5.598	-1.500	-1.250	—	-0.750	—
8	—	-6.956	12.990	20.985	—	7.500	—	-38.028
9	88.000	—	91.412	-48.706	-175.412	38.313	—	—
10	—	-6.000	-20.352	-3.900	1.300	-5.100	—	—
11	—	6.757	2.558	10.174	4.941	-4.922	—	—
12	-45.809	-16.273	18.211	15.607	—	-0.833	—	—
13	-24.617	-3.529	-5.042	-0.803	—	-0.666	—	—
14	51.333	-15.106	—	1.250	2.500	—	-30.833	—
15	-8.000	—	—	0.500	13.196	12.897	—	-10.397
16	—	68.320	—	-3.000	8.660	-0.773	—	-77.547
17	—	-84.301	—	25.980	-17.320	-12.547	—	50.867
18	—	16.000	-3.827	-27.516	-1.500	—	-7.672	—
19	—	6.000	5.410	-8.866	2.000	—	-7.910	—
20	—	17.000	—	-18.750	-12.500	-9.666	—	2.766
21	-48.500	-9.500	—	1.500	-21.000	—	93.748	—
22	-10.700	-49.299	—	-2.000	34.949	37.299	—	—
23	20.311	—	-49.664	-12.166	29.852	30.352	—	—
24	—	-21.000	—	35.074	-23.382	-16.588	—	-35.985
25	24.750	11.500	—	0.500	-16.000	—	17.034	—
26	—	-28.000	-30.606	42.910	41.865	-21.410	—	—
27	-177.033	—	—	12.375	120.361	-40.953	48.172	—
28	3.000	—	108.707	27.712	1.000	—	-130.707	—
29	219.750	—	42.671	-15.833	—	-0.666	-317.000	—
30	—	-2.000	—	-41.569	-27.712	-19.808	—	42.377