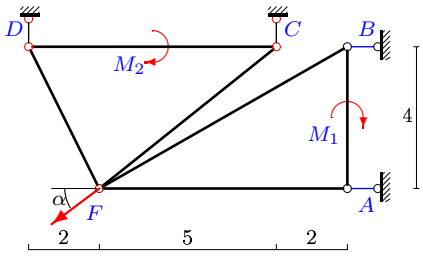
Простая составная конструкция

Определить реакции опор конструкции (в кН), состоящей из двух тел.

Кирсанов М.Н. Задачи по теоретической механике с решениями в **Maple** 11. – М.: ФИЗМАТЛИТ, 2010. — 264 с. (с.15)

Задача S-24.1.

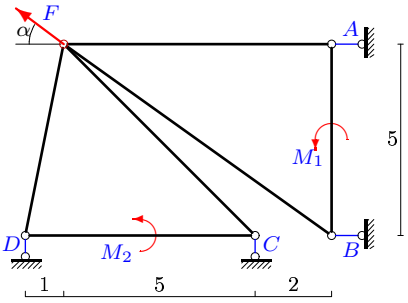
10



$F = 25$ кН, $M_1 = 4$ кНм, $M_2 = 19$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.2.

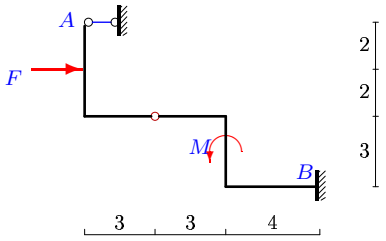
10



$F = 15$ кН, $M_1 = 10$ кНм, $M_2 = 3$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.3.

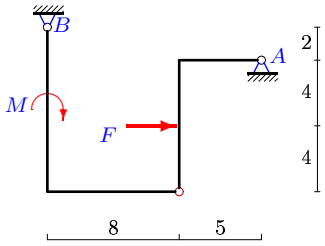
10



$F = 2$ кН, $M = 3$ кНм.

Задача S-24.4.

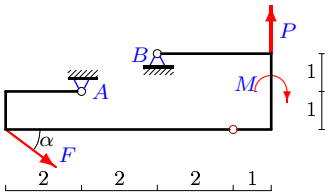
10



$F = 35$ кН, $M = 4$ кНм.

Задача S-24.5.

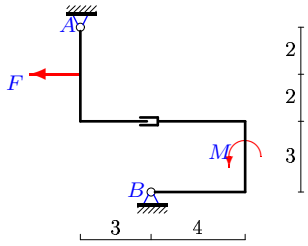
10



$P = 2$ кН, $F = 5$ кН, $M = 2$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.6.

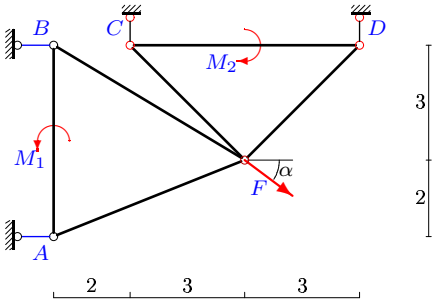
10



$F = 1$ кН, $M = 2$ кНм.

Задача S-24.7.

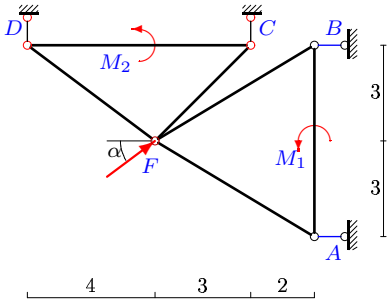
10



$F = 5$ кН, $M_1 = 18$ кНм, $M_2 = 3$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.8.

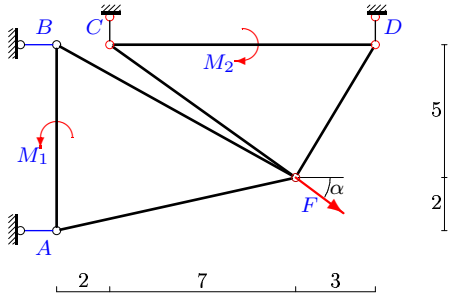
10



$F = 5$ кН, $M_1 = 0$ кНм, $M_2 = 37$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.9.

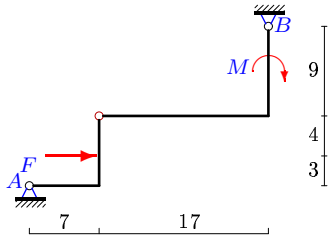
10



$F = 5$ кН, $M_1 = 22$ кНм, $M_2 = 39$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.10.

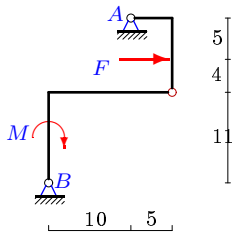
10



$F = 28$ кН, $M = 4$ кНм.

Задача S-24.11.

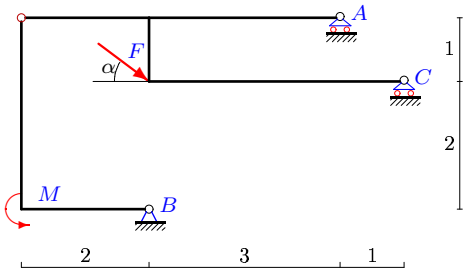
10



$F = 13$ кН, $M = 5$ кНм.

Задача S-24.12.

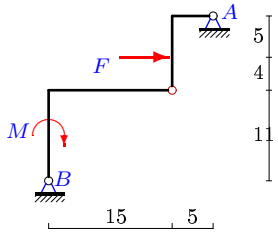
10



$F = 5$ кН, $M = 20$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.13.

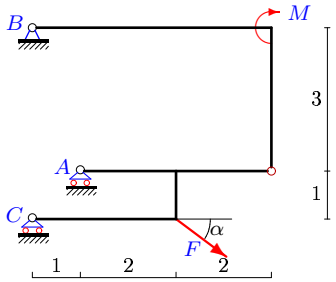
10



$F = 5$ кН, $M = 5$ кНм.

Задача S-24.14.

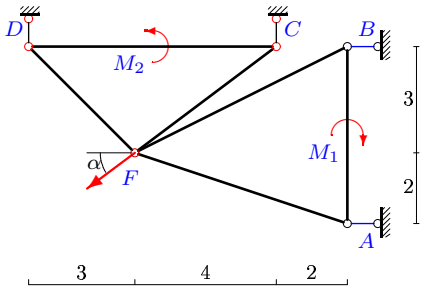
10



$F = 5$ кН, $M = 27$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.15.

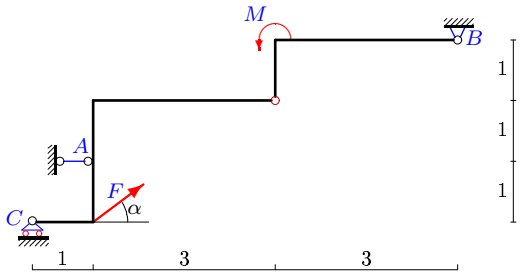
10



$F = 5$ кН, $M_1 = 18$ кНм, $M_2 = 16$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.16.

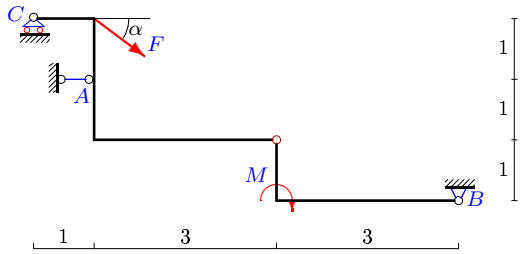
10



$F = 5$ кН, $\cos\alpha = 0{,}8$.

Задача S-24.17.

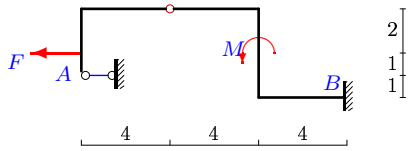
10



$F = 5$ кН, $M = 3$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.18.

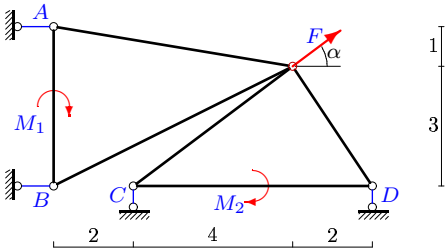
10



$F = 3$ кН, $M = 11$ кНм.

Задача S-24.19.

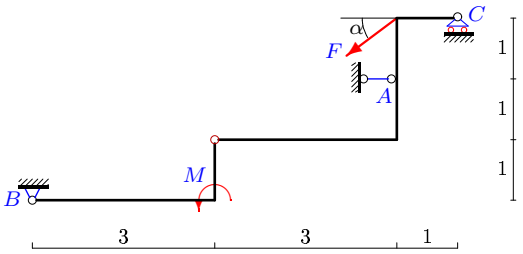
10



$F = 20$ кН, $M_1 = 24$ кНм, $M_2 = 18$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.20.

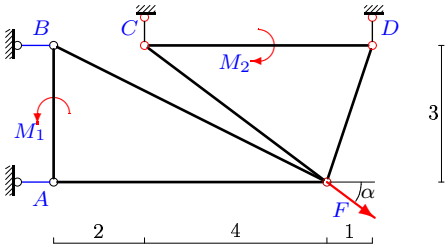
10



$F = 5$ кН, $M = 2$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.21.

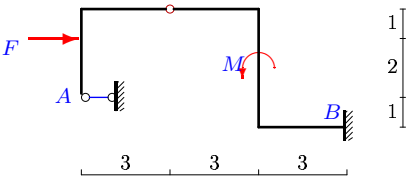
10



$F = 5$ кН, $M_1 = 6$ кНм, $M_2 = 13$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.22.

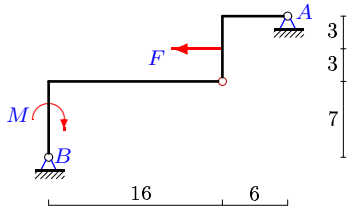
10



$F = 3$ кН, $M = 8$ кНм.

Задача S-24.23.

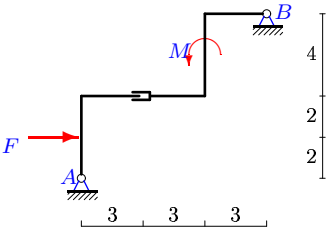
10



$F = 4$ кН, $M = 5$ кНм.

Задача S-24.24.

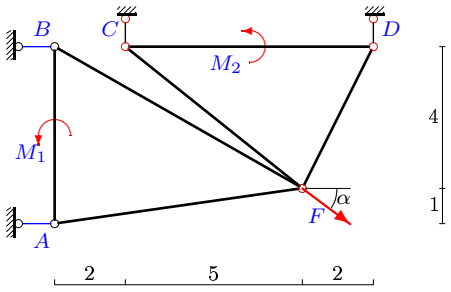
10



$F = 9$ кН, $M = 36$ кНм.

Задача S-24.25.

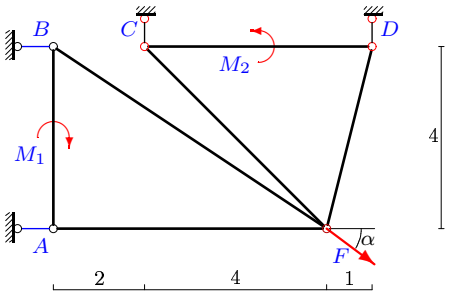
10



$F = 5$ кН, $M_1 = 9$ кНм, $M_2 = 1$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.26.

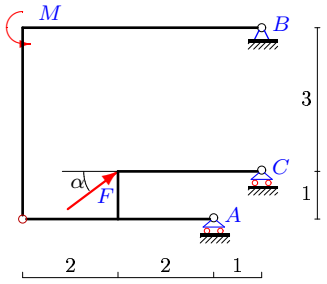
10



$F = 15$ кН, $M_1 = 8$ кНм, $M_2 = 1$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.27.

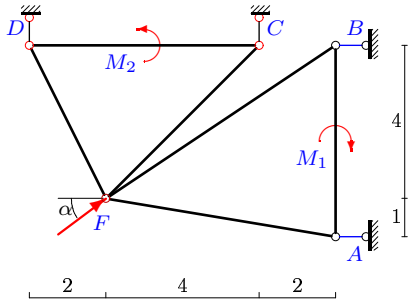
10



$F = 5$ кН, $M = 4$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.28.

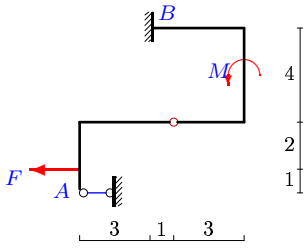
10



$F = 5$ кН, $M_1 = 6$ кНм, $M_2 = 36$ кНм, $\cos\alpha = 0{,}8$.

Задача S-24.29.

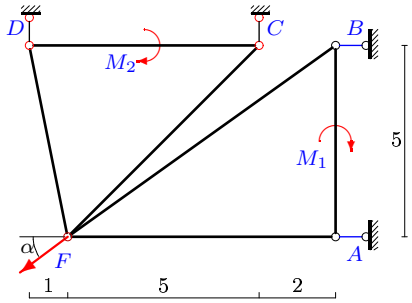
10



$F = 3$ кН, $M = 10$ кНм.

Задача S-24.30.

10



$F = 10$ кН, $M_1 = 5$ кНм, $M_2 = 6$ кНм, $\cos\alpha = 0{,}8$.

Ответы.

Простая составная конструкция

12.02.2015

№	X_A	Y_A	X_B	Y_B	Y_C	M_B	Y_D
1	21	–	−1	–	7	–	8
2	14	–	−2	–	−2	–	−7
3	−1	–	−1	0	–	0	–
4	−25	−12	−10	12	–	–	–
5	−10	7	6	−6	–	–	–
6	1	0	0	0	–	–	–
7	−6	–	2	–	1	–	2
8	−2	–	−2	–	−7	–	4
9	−6	–	2	–	−3	–	6
10	−3	13	−25	−13	–	–	–
11	−8	4	−5	−4	–	–	–
12	–	40	−4	−4	−33	–	–
13	0	4	−5	−4	–	–	–
14	–	20	−4	−3	−14	–	–
15	6	–	−2	–	−1	–	4
16	17	–	−21	−7	4	–	–
17	5	–	9	−4	−1	–	–
18	2	–	1	0	–	−15	–
19	−18	–	2	–	−7	–	−5
20	−9	–	13	5	−2	–	–
21	−6	–	2	–	−2	–	5
22	−1	–	−2	0	–	0	–
23	1	−1	3	1	–	–	–
24	−9	2	0	−2	–	–	–
25	−5	–	1	–	1	–	2
26	−10	–	−2	–	2	–	7
27	–	7	−4	−4	−6	–	–
28	−2	–	−2	–	−7	–	4
29	2	–	1	0	–	−6	–
30	9	–	−1	–	2	–	4

S-24 файл o24s10H