

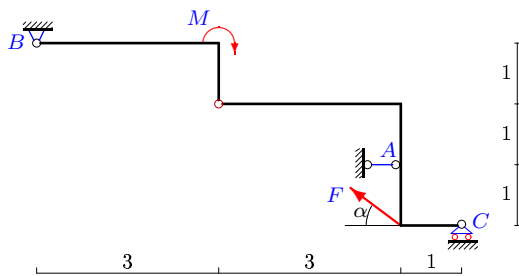
# Простая составная конструкция

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.

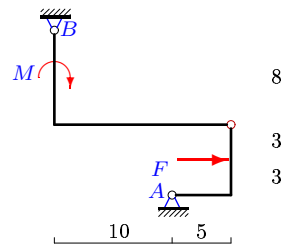
9



$$F = 10 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0,8.$$

Задача S-24.2.

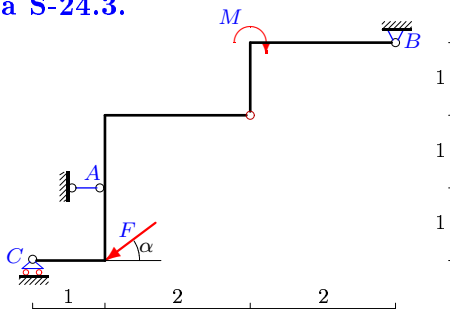
9



$$F = 17 \text{ кН}, M = 3 \text{ кНм}.$$

Задача S-24.3.

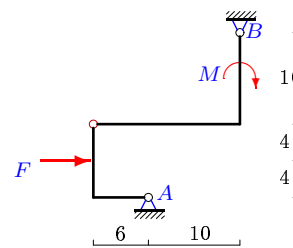
9



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

Задача S-24.4.

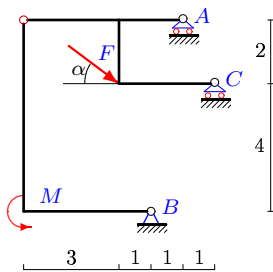
9



$$F = 29 \text{ кН}, M = 4 \text{ кНм}.$$

Задача S-24.5.

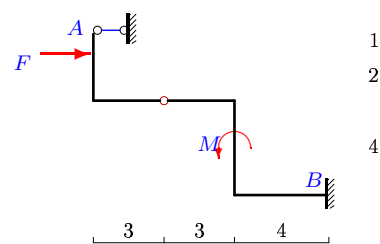
9



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

Задача S-24.6.

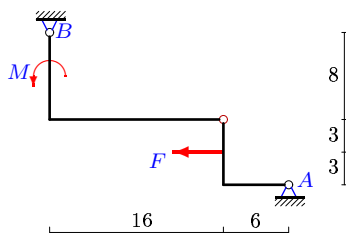
9



$$F = 3 \text{ кН}, M = 10 \text{ кНм}.$$

Задача S-24.7.

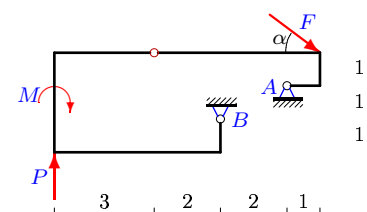
9



$$F = 4 \text{ кН}, M = 8 \text{ кНм}.$$

Задача S-24.8.

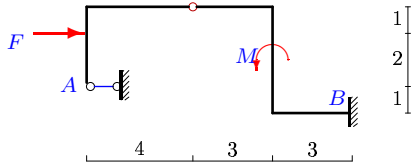
9



$$P = 6 \text{ кН}, F = 15 \text{ кН}, M = 6 \text{ кНм}, \cos \alpha = 0,8.$$

Задача S-24.9.

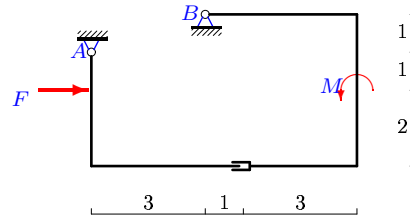
9



$F = 3 \text{ кН}, M = 8 \text{ кНм}.$

Задача S-24.10.

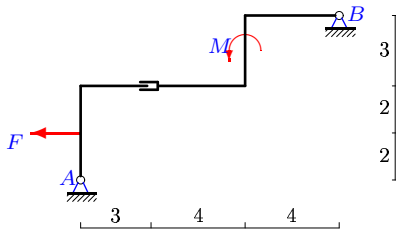
9



$F = 3 \text{ кН}, M = 3 \text{ кНм}.$

Задача S-24.11.

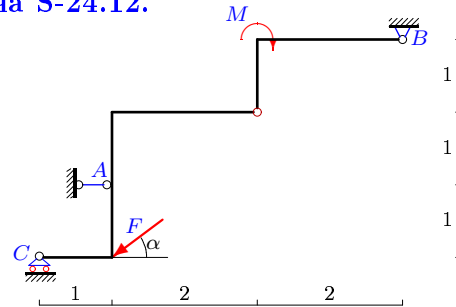
9



$F = 11 \text{ кН}, M = 44 \text{ кНм}.$

Задача S-24.12.

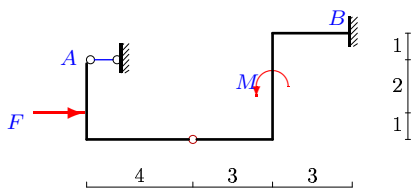
9



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

Задача S-24.13.

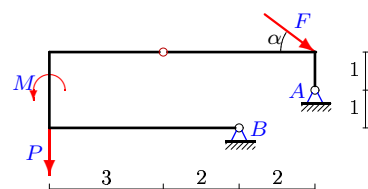
9



$F = 3 \text{ кН}, M = 8 \text{ кНм}.$

Задача S-24.14.

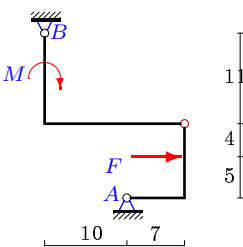
9



$P = 12 \text{ кН}, F = 15 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0,8.$

Задача S-24.15.

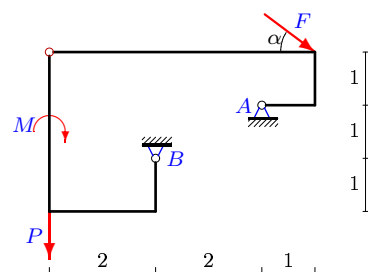
9



$F = 5 \text{ кН}, M = 5 \text{ кНм}.$

Задача S-24.16.

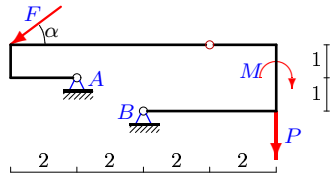
9



$P = 12 \text{ кН}, F = 15 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0,8.$

Задача S-24.17.

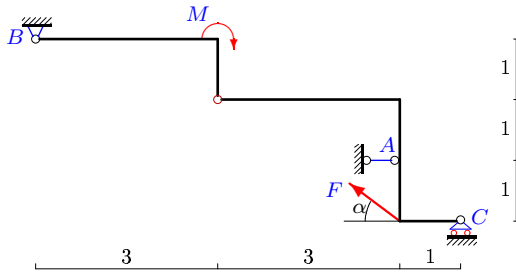
9



$P = 6 \text{ кН}, F = 15 \text{ кН}, M = 6 \text{ кНм}, \cos \alpha = 0,8.$

Задача S-24.19.

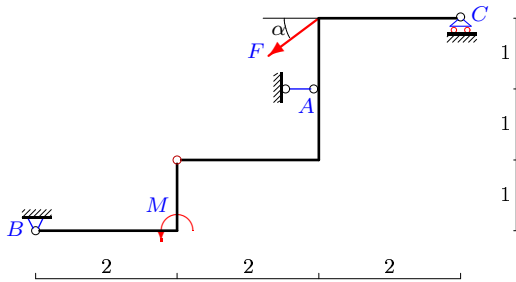
9



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

Задача S-24.21.

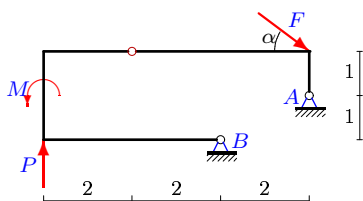
9



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

Задача S-24.23.

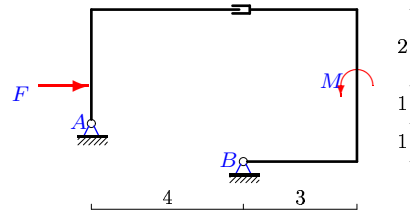
9



$P = 2 \text{ кН}, F = 5 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0,8.$

Задача S-24.18.

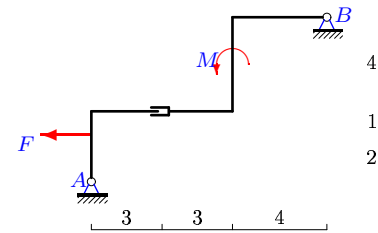
9



$F = 2 \text{ кН}, M = 6 \text{ кНм}.$

Задача S-24.20.

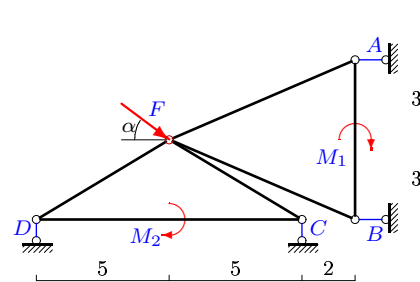
9



$F = 5 \text{ кН}, M = 20 \text{ кНм}.$

Задача S-24.22.

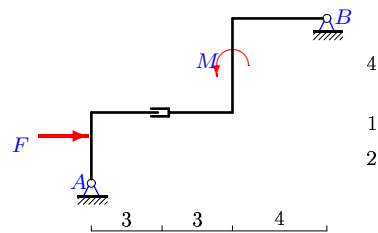
9



$F = 5 \text{ кН}, M_1 = 24 \text{ кНм}, M_2 = 75 \text{ кНм}, \cos \alpha = 0,8.$

Задача S-24.24.

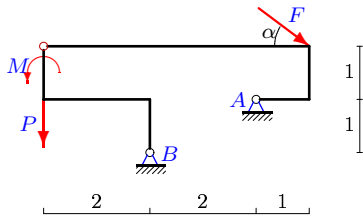
9



$F = 10 \text{ кН}, M = 30 \text{ кНм}.$

Задача S-24.25.

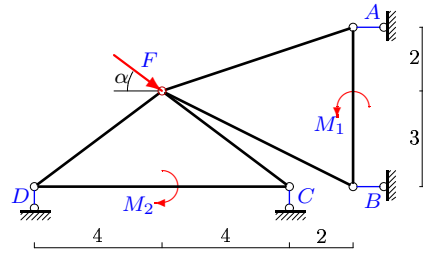
9



$P = 6 \text{ кН}, F = 15 \text{ кН}, M = 6 \text{ кНм},$   
 $\cos \alpha = 0,8.$

Задача S-24.26.

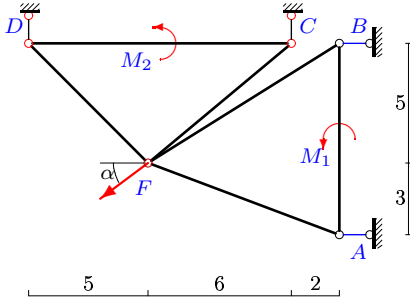
9



$F = 5 \text{ кН}, M_1 = 2 \text{ кНм}, M_2 = 60 \text{ кНм},$   
 $\cos \alpha = 0,8.$

Задача S-24.27.

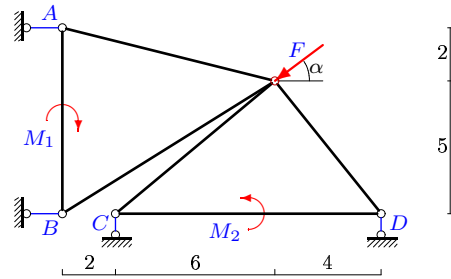
9



$F = 5 \text{ кН}, M_1 = 4 \text{ кНм}, M_2 = 37 \text{ кНм},$   
 $\cos \alpha = 0,8.$

Задача S-24.28.

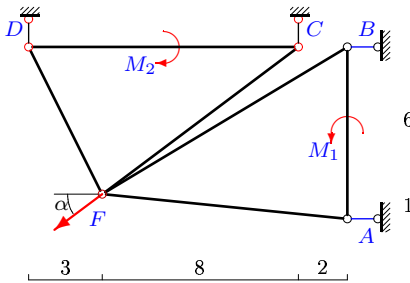
9



$F = 5 \text{ кН}, M_1 = 6 \text{ кНм}, M_2 = 78 \text{ кНм},$   
 $\cos \alpha = 0,8.$

Задача S-24.29.

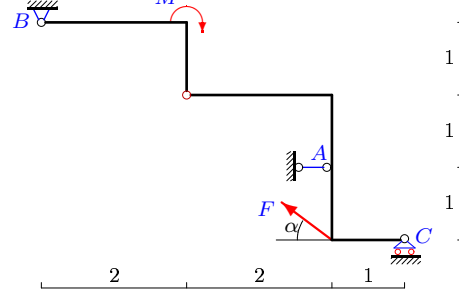
9



$F = 20 \text{ кН}, M_1 = 5 \text{ кНм}, M_2 = 8 \text{ кНм},$   
 $\cos \alpha = 0,8.$

Задача S-24.30.

9



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

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**Ответы.**  
**Простая составная конструкция**

12.02.2015

№	$X_A$	$Y_A$	$X_B$	$Y_B$	$Y_C$	$M_B$	$Y_D$
1	-6	-	-14	7	1	-	-
2	-11	-3	-6	3	-	-	-
3	-4	-	8	5	-2	-	-
4	-19	6	-10	-6	-	-	-
5	-	-13	-4	5	11	-	-
6	-2	-	-1	0	-	-6	-
7	1	1	3	-1	-	-	-
8	-43	22	31	-19	-	-	-
9	-1	-	-2	0	-	0	-
10	-3	2	0	-2	-	-	-
11	11	6	0	-6	-	-	-
12	-1	-	5	4	-1	-	-
13	-1	-	-2	0	-	-16	-
14	32	1	-44	20	-	-	-
15	-3	-1	-2	1	-	-	-
16	-11	14	-1	7	-	-	-
17	2	14	10	1	-	-	-
18	-2	1	0	-1	-	-	-
19	-5	-	-9	4	1	-	-
20	5	3	0	-3	-	-	-
21	10	-	-6	1	2	-	-
22	-6	-	2	-	9	-	-6
23	-8	5	4	-4	-	-	-
24	-10	1	0	-1	-	-	-
25	-7	13	-5	2	-	-	-
26	-2	-	-2	-	9	-	-6
27	2	-	2	-	-2	-	5
28	2	-	2	-	9	-	-6
29	13	-	3	-	4	-	8
30	14	-	10	-1	-4	-	-

S-24 файл о24s9H