

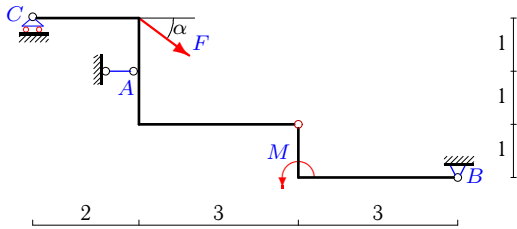
## Простая составная конструкция

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 S24.1.**

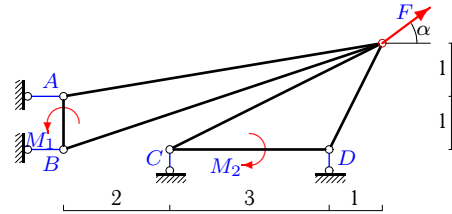
8



$$F = 5 \text{ кН}, M = 0 \text{ кНм}, \cos \alpha = 0.8.$$

**Задача S24.2.**

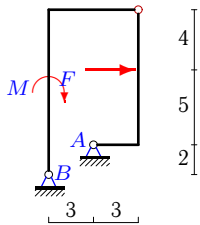
8



$$F = 25 \text{ кН}, M_1 = 23 \text{ кНм}, M_2 = 51 \text{ кНм}, \cos \alpha = 0.8.$$

**Задача S24.3.**

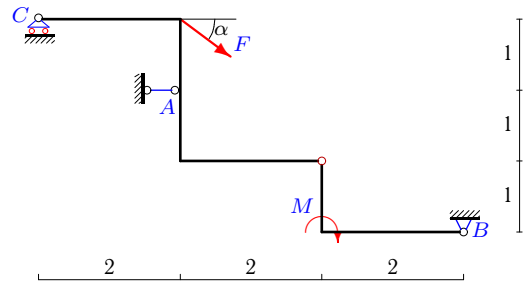
8



$$F = 3 \text{ кН}, M = 5 \text{ кНм}.$$

**Задача S24.4.**

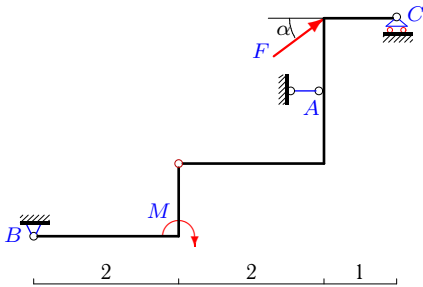
8



$$F = 5 \text{ кН}, M = 6 \text{ кНм}, \cos \alpha = 0.8.$$

**Задача S24.5.**

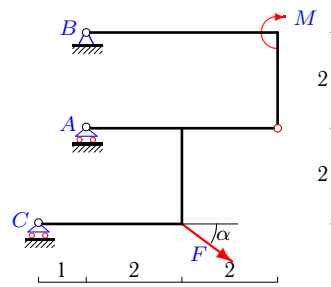
8



$$F = 10 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$$

**Задача S24.6.**

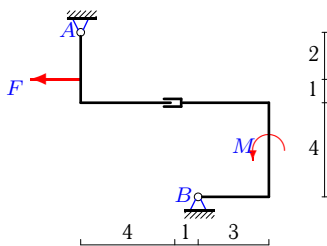
8



$$F = 10 \text{ кН}, M = 28 \text{ кНм}, \cos \alpha = 0.8.$$

**Задача S24.7.**

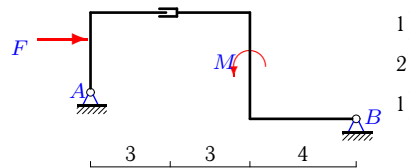
8



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

**Задача S24.8.**

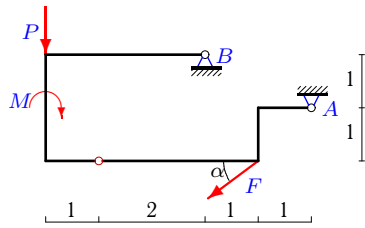
8



$$F = 20 \text{ кН}, M = 30 \text{ кНм}.$$

**Задача S24.9.**

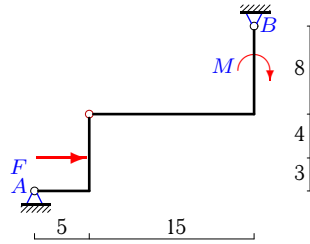
8



$P = 6 \text{ кН}, F = 30 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.10.**

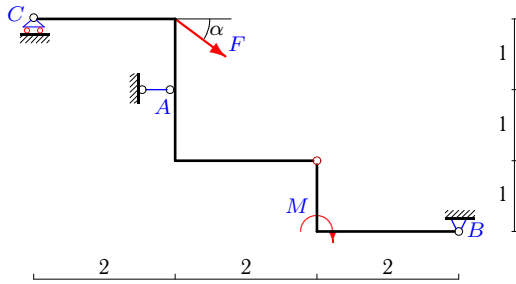
8



$F = 15 \text{ кН}, M = 5 \text{ кНм}.$

**Задача S24.11.**

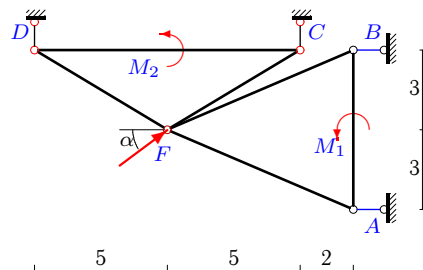
8



$F = 10 \text{ кН}, M = 10 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.12.**

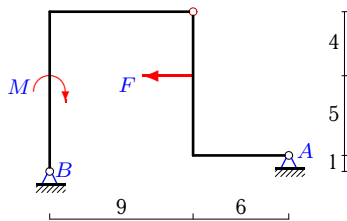
8



$F = 5 \text{ кН}, M_1 = 6 \text{ кНм}, M_2 = 45 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.13.**

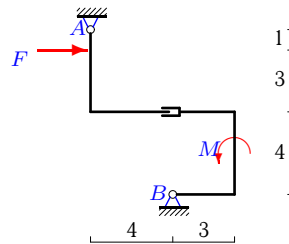
8



$F = 3 \text{ кН}, M = 1 \text{ кНм}.$

**Задача S24.14.**

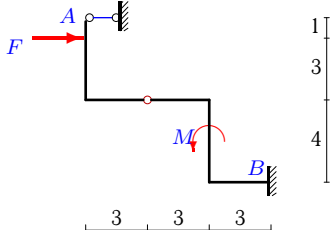
8



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

**Задача S24.15.**

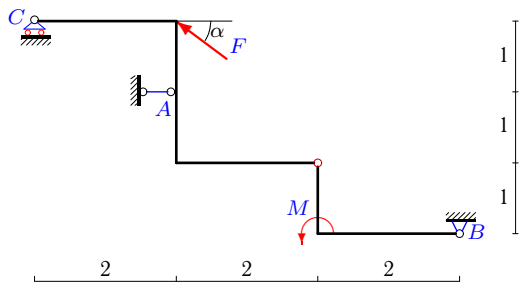
8



$F = 4 \text{ кН}, M = 6 \text{ кНм}.$

**Задача S24.16.**

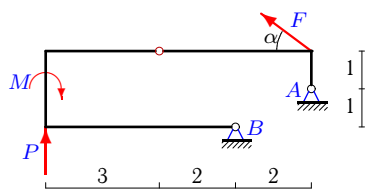
8



$F = 5 \text{ кН}, M = 0 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.17.**

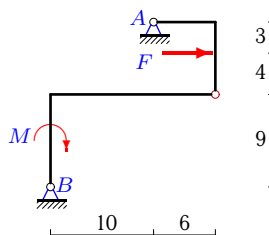
8



$P = 3 \text{ кН}, F = 15 \text{ кН}, M = 3 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.18.**

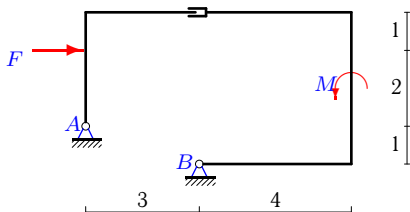
8



$F = 11 \text{ кН}, M = 5 \text{ кНм}.$

**Задача S24.19.**

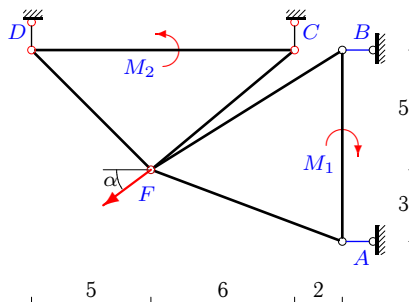
8



$F = 1 \text{ кН}, M = 2 \text{ кНм}.$

**Задача S24.20.**

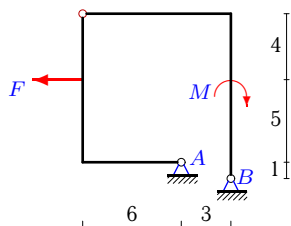
8



$F = 5 \text{ кН}, M_1 = 4 \text{ кНм}, M_2 = 4 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.21.**

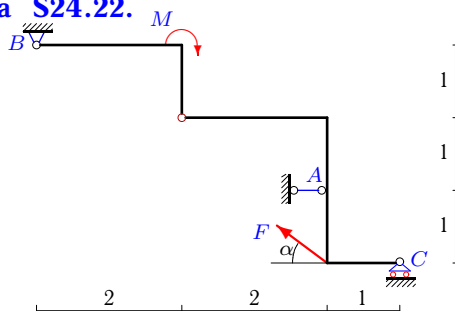
8



$F = 3 \text{ кН}, M = 5 \text{ кНм}.$

**Задача S24.22.**

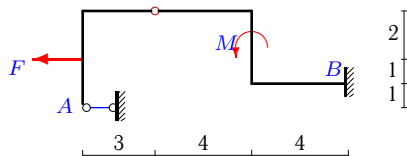
8



$F = 5 \text{ кН}, M = 6 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.23.**

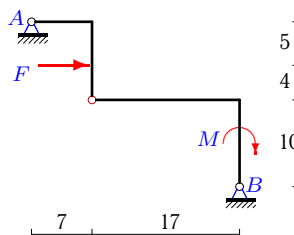
8



$F = 8 \text{ кН}, M = 7 \text{ кНм}.$

**Задача S24.24.**

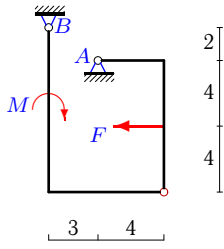
8



$F = 24 \text{ кН}, M = 5 \text{ кНм}.$

**Задача S24.25.**

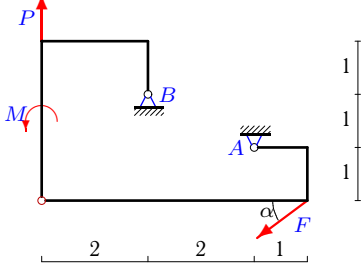
8



$F = 1 \text{ кН}, M = 5 \text{ кНм}.$

**Задача S24.27.**

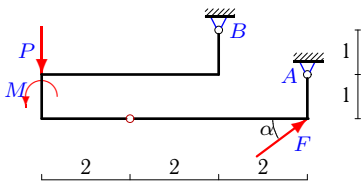
8



$P = 12 \text{ кН}, F = 15 \text{ кН}, M = 6 \text{ кНм},$   
 $\cos \alpha = 0.8.$

**Задача S24.29.**

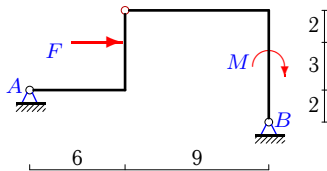
8



$P = 2 \text{ кН}, F = 5 \text{ кН}, M = 2 \text{ кНм},$   
 $\cos \alpha = 0.8.$

**Задача S24.31.**

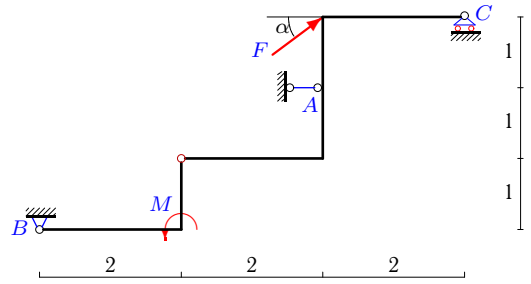
8



$F = 20 \text{ кН}, M = 3 \text{ кНм}.$

**Задача S24.26.**

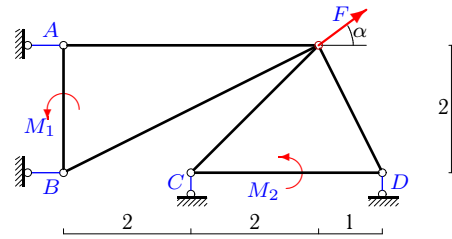
8



$F = 5 \text{ кН}, M = 0 \text{ кНм}, \cos \alpha = 0.8.$

**Задача S24.28.**

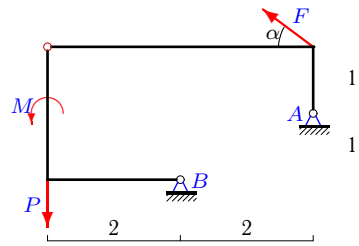
8



$F = 5 \text{ кН}, M_1 = 4 \text{ кНм}, M_2 = 9 \text{ кНм},$   
 $\cos \alpha = 0.8.$

**Задача S24.30.**

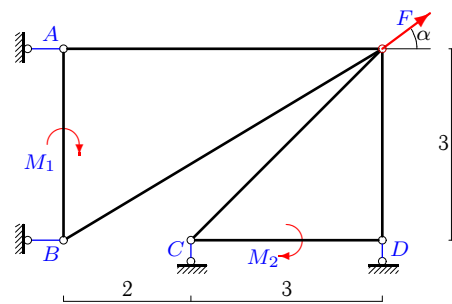
8



$P = 6 \text{ кН}, F = 15 \text{ кН}, M = 6 \text{ кНм},$   
 $\cos \alpha = 0.8.$

**Задача S24.32.**

8



$F = 15 \text{ кН}, M_1 = 6 \text{ кНм}, M_2 = 15 \text{ кНм},$   
 $\cos \alpha = 0.8.$

**S24 Ответы.**  
**Простая составная конструкция**

15.06.2012

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

S24 файл о24s8H