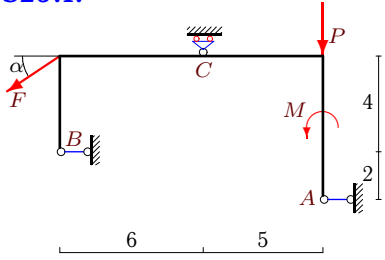


Равновесие рамы

Определить реакции опор рамы.

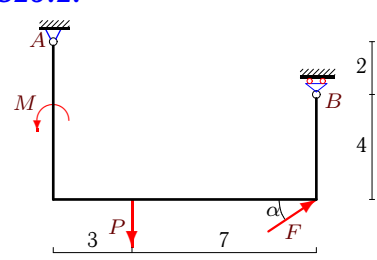
Кирсанов М.Н. Задачи по теоретической механике с решениями в **Maple** 11. – М.: ФИЗМАТЛИТ, 2010. – 264 с. (с.10)

Задача S29.1.



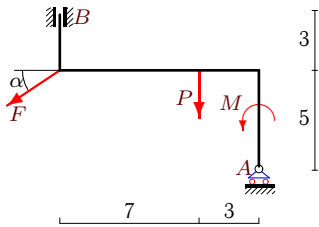
$F = 5 \text{ кН}, P = 2 \text{ кН}, M = 10 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.2.



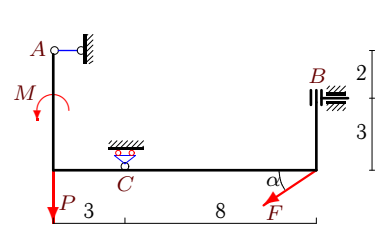
$F = 50 \text{ кН}, P = 11 \text{ кН}, M = 33 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.3.



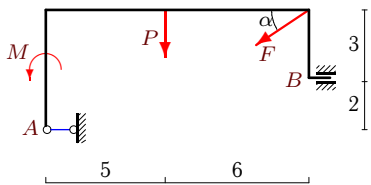
$F = 15 \text{ кН}, P = 3 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.4.



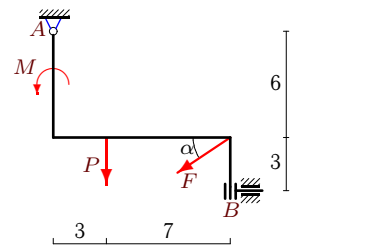
$F = 25 \text{ кН}, P = 1 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.5.



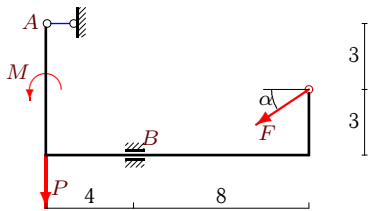
$F = 40 \text{ кН}, P = 5 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.6.



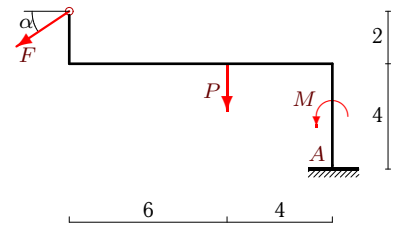
$F = 40 \text{ кН}, P = 1 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.7.



$F = 35 \text{ кН}, P = 24 \text{ кН}, M = 21 \text{ кНм}, \cos \alpha = 0.8.$

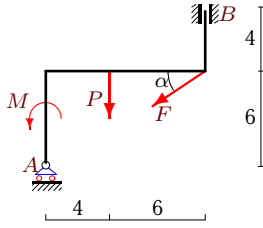
Задача S29.8.



$F = 30 \text{ кН}, P = 4 \text{ кН}, M = 3 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.9.

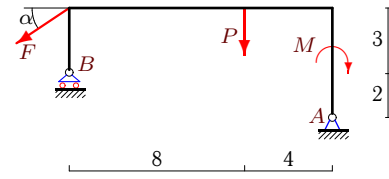
1



$F = 15 \text{ кН}, P = 3 \text{ кН}, M = 5 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.10.

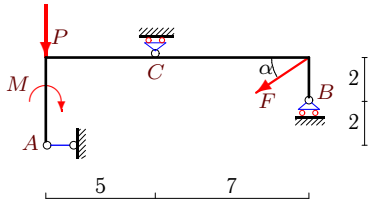
1



$F = 30 \text{ кН}, P = 1 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.11.

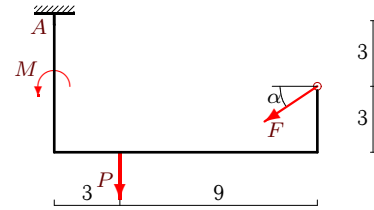
1



$F = 35 \text{ кН}, P = 6 \text{ кН}, M = 30 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.12.

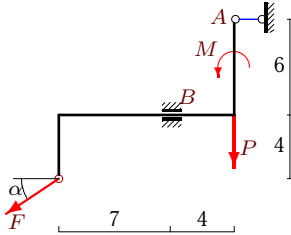
1



$F = 10 \text{ кН}, P = 1 \text{ кН}, M = 3 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.13.

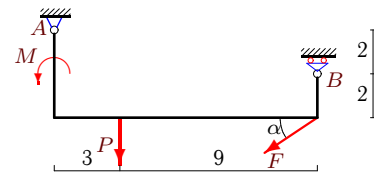
1



$F = 30 \text{ кН}, P = 6 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.14.

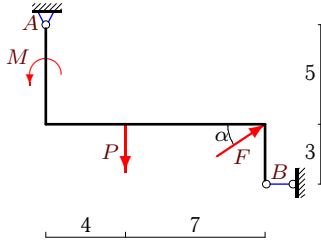
1



$F = 15 \text{ кН}, P = 1 \text{ кН}, M = 3 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.15.

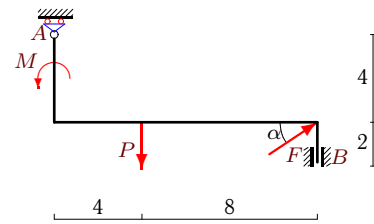
1



$F = 40 \text{ кН}, P = 4 \text{ кН}, M = 16 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.16.

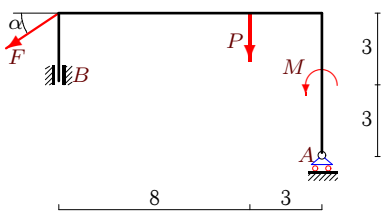
1



$F = 5 \text{ кН}, P = 3 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.17.

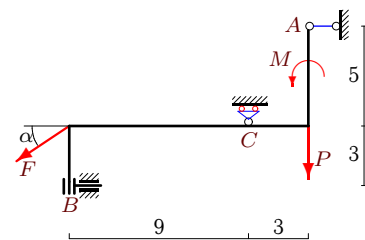
1



$F = 15 \text{ кН}, P = 3 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.18.

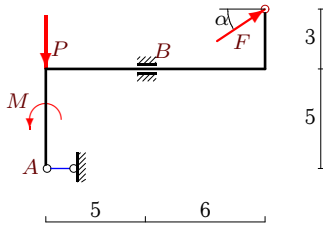
1



$F = 50 \text{ кН}, P = 2 \text{ кН}, M = 23 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.19.

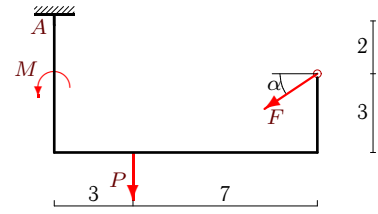
1



$F = 20 \text{ кН}, P = 18 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.20.

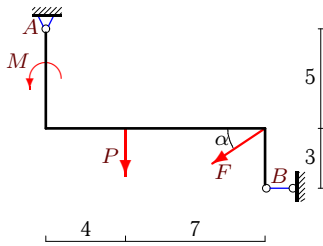
1



$F = 20 \text{ кН}, P = 1 \text{ кН}, M = 2 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.21.

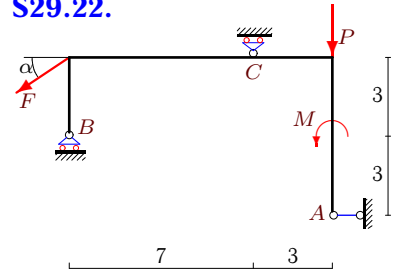
1



$F = 40 \text{ кН}, P = 2 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.22.

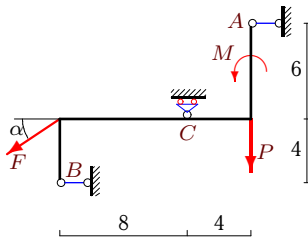
1



$F = 35 \text{ кН}, P = 1 \text{ кН}, M = 3 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.23.

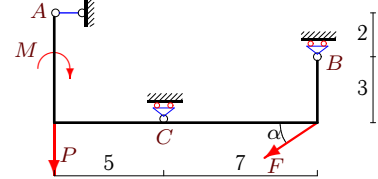
1



$F = 50 \text{ кН}, P = 1 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.24.

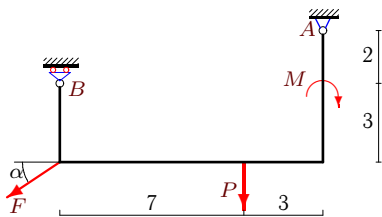
1



$F = 35 \text{ кН}, P = 2 \text{ кН}, M = 10 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.25.

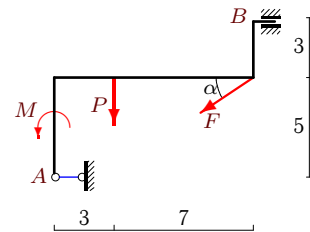
1



$F = 50 \text{ кН}, P = 1 \text{ кН}, M = 3 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.26.

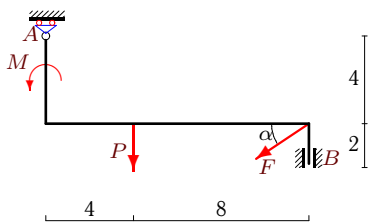
1



$F = 70 \text{ кН}, P = 2 \text{ кН}, M = 5 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.27.

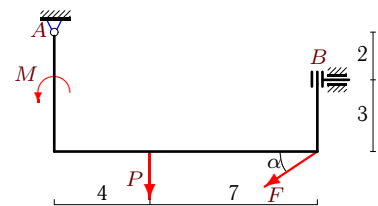
1



$F = 15 \text{ кН}, P = 5 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.28.

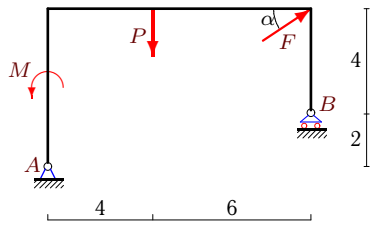
1



$F = 70 \text{ кН}, P = 3 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.29.

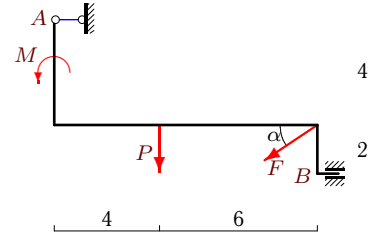
1



$F = 50 \text{ кН}, P = 1 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.30.

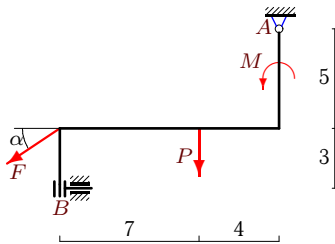
1



$F = 35 \text{ кН}, P = 5 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.31.

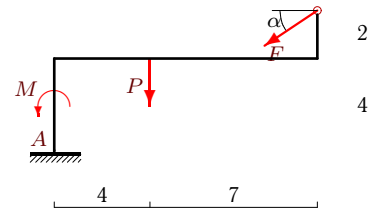
1



$F = 70 \text{ кН}, P = 3 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.32.

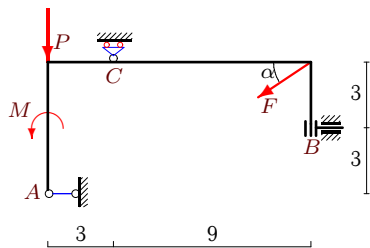
1



$F = 30 \text{ кН}, P = 4 \text{ кН}, M = 5 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.33.

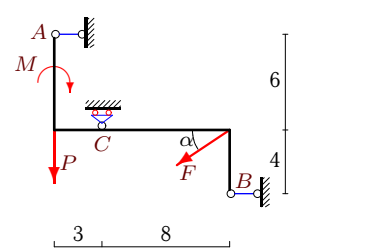
1



$F = 30 \text{ кН}, P = 1 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.34.

1



$F = 50 \text{ кН}, P = 11 \text{ кН}, M = 33 \text{ кНм}, \cos \alpha = 0.8.$

S29 Ответы.
Равновесие рамы

03.12.2011

№	X_A	Y_A	M_A	X_B	Y_B	M_B	Y_C
1	-17	-	-	21	-	-	5
2	-40	35	-	-	-54	-	-
3	-	12	-	12	-	-67	-
4	20	-	-	-	-	209	16
5	32	-	-	-	29	-198	-
6	32	25	-	-	-	431	-
7	28	-	-	-	45	135	-
8	24	22	-343	-	-	-	-
9	-	12	-	12	-	145	-
10	24	-9	-	-	28	-	-
11	28	-	-	-	5	-	22
12	8	7	96	-	-	-	-
13	24	-	-	-	24	131	-
14	12	-3	-	-	13	-	-
15	21	-20	-	-53	-	-	-
16	-	0	-	-4	-	-23	-
17	-	12	-	12	-	-151	-
18	40	-	-	-	-	-87	32
19	-16	-	-	-	6	-41	-
20	16	13	153	-	-	-	-
21	-21	26	-	53	-	-	-
22	28	-	-	-	45	-	-23
23	40	-	-	0	-	-	31
24	28	-	-	-	41	-	-18
25	40	21	-	-	10	-	-
26	56	-	-	-	44	-299	-
27	-	14	-	12	-	97	-
28	56	45	-	-	-	742	-
29	-40	-23	-	-	-6	-	-
30	28	-	-	-	26	78	-
31	56	45	-	-	-	-206	-
32	24	22	65	-	-	-	-
33	24	-	-	-	-	3	19
34	-8	-	-	48	-	-	41

S29 файл о29s1A