

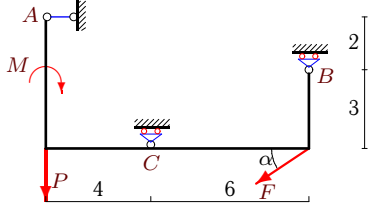
Равновесие рамы

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.

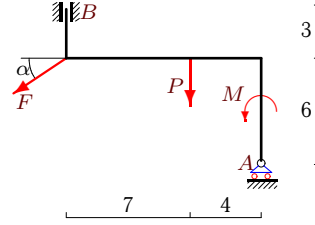
4



$$F = 15 \text{ кН}, P = 2 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.2.

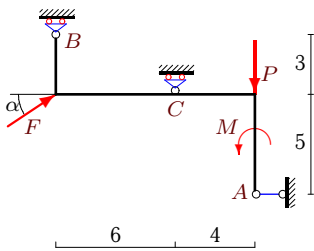
4



$$F = 15 \text{ кН}, P = 4 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.3.

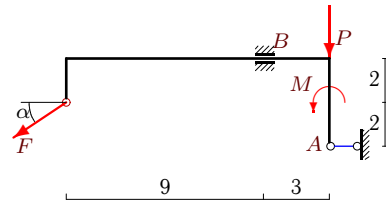
4



$$F = 15 \text{ кН}, P = 2 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.4.

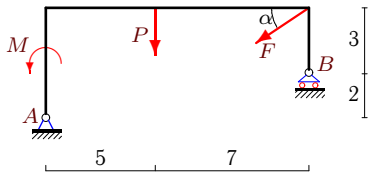
4



$$F = 40 \text{ кН}, P = 18 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.5.

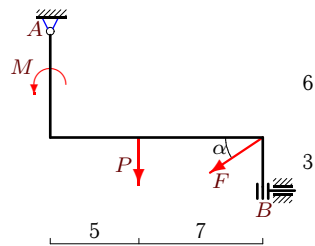
4



$$F = 60 \text{ кН}, P = 5 \text{ кН}, M = 25 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.6.

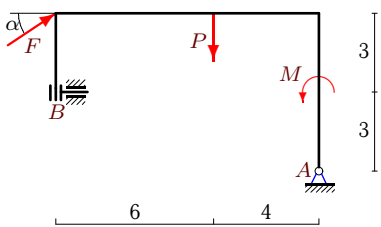
4



$$F = 45 \text{ кН}, P = 5 \text{ кН}, M = 18 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.7.

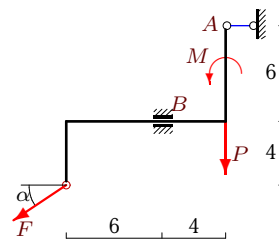
4



$$F = 35 \text{ кН}, P = 2 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.8.

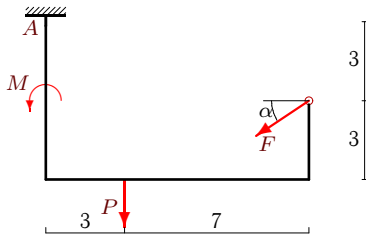
4



$$F = 60 \text{ кН}, P = 12 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$$

Задача S29.9.

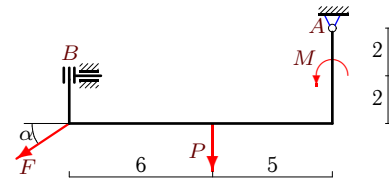
4



$F = 50 \text{ кН}, P = 2 \text{ кН}, M = 5 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.10.

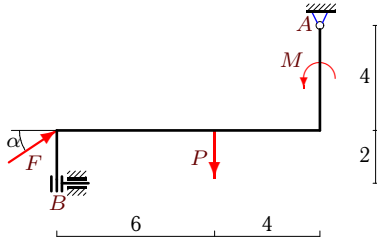
4



$F = 60 \text{ кН}, P = 5 \text{ кН}, M = 11 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.11.

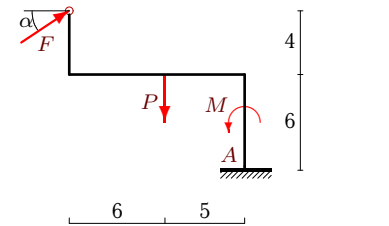
4



$F = 25 \text{ кН}, P = 3 \text{ кН}, M = 6 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.12.

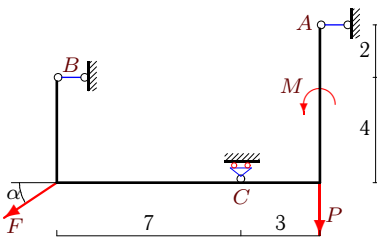
4



$F = 20 \text{ кН}, P = 2 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.13.

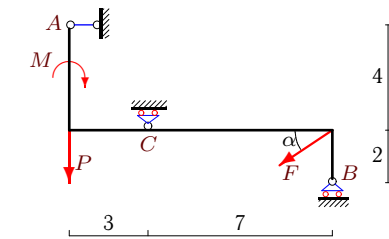
4



$F = 10 \text{ кН}, P = 11 \text{ кН}, M = 33 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.14.

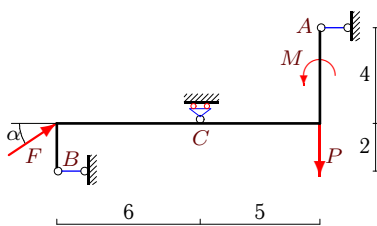
4



$F = 70 \text{ кН}, P = 3 \text{ кН}, M = 9 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.15.

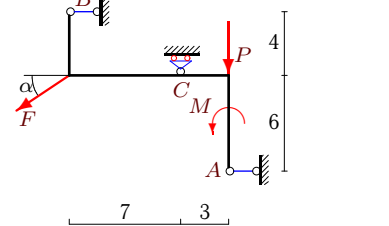
4



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

Задача S29.16.

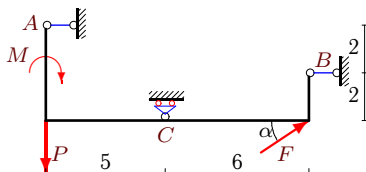
4



$F = 50 \text{ кН}, P = 2 \text{ кН}, M = 6 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.17.

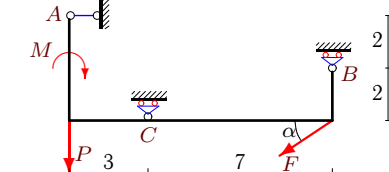
4



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

Задача S29.18.

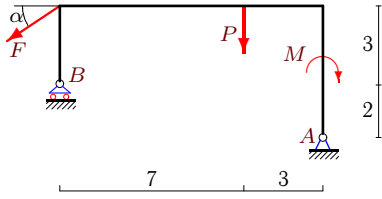
4



$F = 35 \text{ кН}, P = 4 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.19.

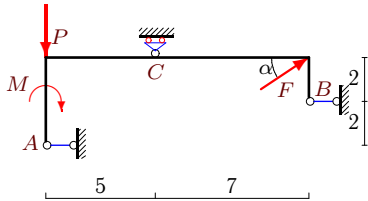
4



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

Задача S29.21.

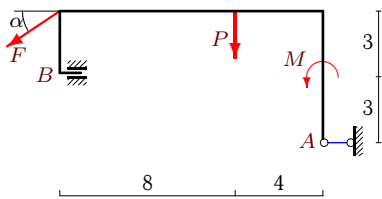
4



$F = 10 \text{ кН}, P = 4 \text{ кН}, M = 20 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.23.

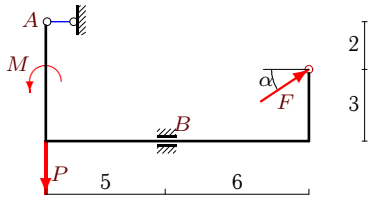
4



$F = 80 \text{ кН}, P = 3 \text{ кН}, M = 12 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.25.

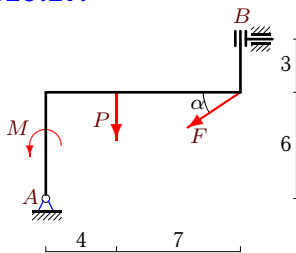
4



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

Задача S29.27.

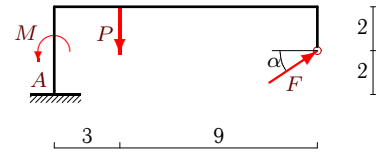
4



$F = 45 \text{ кН}, P = 4 \text{ кН}, M = 13 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.20.

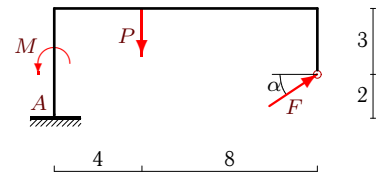
4



$F = 10 \text{ кН}, P = 2 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.22.

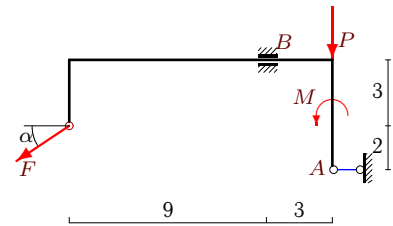
4



$F = 15 \text{ кН}, P = 2 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.24.

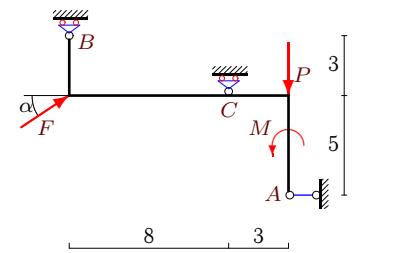
4



$F = 25 \text{ кН}, P = 6 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.26.

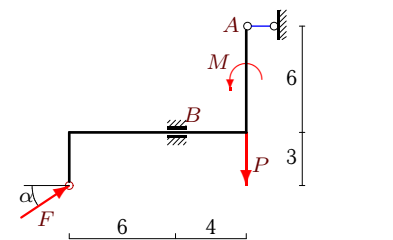
4



$F = 40 \text{ кН}, P = 3 \text{ кН}, M = 9 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.28.

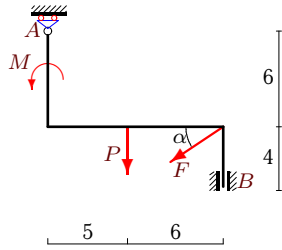
4



$F = 25 \text{ кН}, P = 12 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.29.

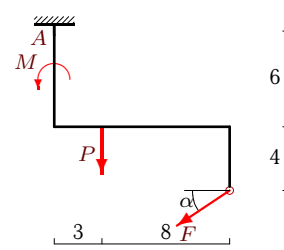
4



$F = 20 \text{ кН}, P = 3 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.30.

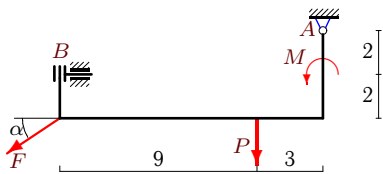
4



$F = 50 \text{ кН}, P = 1 \text{ кН}, M = 7 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.31.

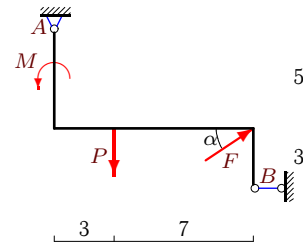
4



$F = 60 \text{ кН}, P = 3 \text{ кН}, M = 16 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.32.

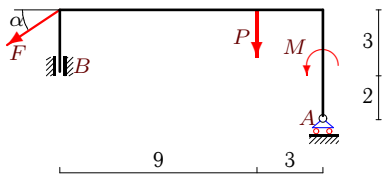
4



$F = 40 \text{ кН}, P = 3 \text{ кН}, M = 9 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.33.

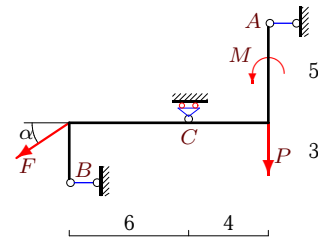
4



$F = 15 \text{ кН}, P = 3 \text{ кН}, M = 8 \text{ кНм}, \cos \alpha = 0.8.$

Задача S29.34.

4



$F = 20 \text{ кН}, P = 1 \text{ кН}, M = 4 \text{ кНм}, \cos \alpha = 0.8.$

S29 Ответы.
Равновесие рамы

03.12.2011

№	X_A	Y_A	M_A	X_B	Y_B	M_B	Y_C
1	12	—	—	—	19	—	—8
2	—	13	—	12	—	—86	—
3	—12	—	—	—	—19	—	12
4	32	—	—	—	42	—233	—
5	48	25	—	—	16	—	—
6	36	32	—	—	—	547	—
7	—28	—19	—	—	—	362	—
8	48	—	—	—	48	305	—
9	40	32	421	—	—	—	—
10	48	41	—	—	—	—240	—
11	—20	—12	—	—	—	52	—
12	—16	—10	275	—	—	—	—
13	5	—	—	3	—	—	17
14	56	—	—	—	74	—	—29
15	—13	—	—	1	—	—	—6
16	—5	—	—	45	—	—	32
17	13	—	—	—17	—	—	0
18	28	—	—	—	37	—	—12
19	40	—19	—	—	50	—	—
20	—8	—4	—57	—	—	—	—
21	—13	—	—	5	—	—	—2
22	—12	—7	—84	—	—	—	—
23	64	—	—	—	51	—372	—
24	20	—	—	—	21	—164	—
25	—16	—	—	—	6	—201	—
26	—32	—	—	—	—44	—	23
27	36	31	—	—	—	84	—
28	—20	—	—	—	—3	—49	—
29	—	15	—	16	—	76	—
30	40	31	726	—	—	—	—
31	48	39	—	—	—	—265	—
32	18	—21	—	—50	—	—	—
33	—	12	—	12	—	—161	—
34	15	—	—	1	—	—	13

S29 файл о29s4A