

Равновесие рамы

Определить реакции опор рамы; $\cos \alpha = 0.8$.

Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.- М.:ФИЗМАТЛИТ, 2008.- 384 с. (с.67.)

Задача 29.1. 9

$F = 30 \text{ кН}, P = 9 \text{ кН}, m = 7 \text{ кНм}.$

Задача 29.2. 9

$F = 15 \text{ кН}, P = 2 \text{ кН}, m = 9 \text{ кНм}.$

Задача 29.3. 9

$F = 30 \text{ кН}, P = 3 \text{ кН}, m = 16 \text{ кНм}.$

Задача 29.4. 9

$F = 30 \text{ кН}, P = 4 \text{ кН}, m = 12 \text{ кНм}.$

Задача 29.5. 9

$F = 30 \text{ кН}, P = 3 \text{ кН}, m = 11 \text{ кНм}.$

Задача 29.6. 9

$F = 35 \text{ кН}, P = 5 \text{ кН}, m = 7 \text{ кНм}.$

Задача 29.7. 9

$F = 50 \text{ кН}, P = 2 \text{ кН}, m = 5 \text{ кНм}.$

Задача 29.8. 9

$F = 15 \text{ кН}, P = 5 \text{ кН}, m = 3 \text{ кНм}.$

Задача 29.9. 9

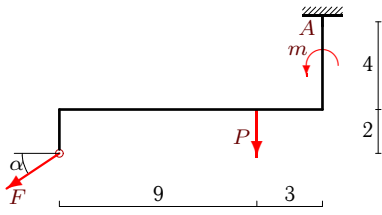
$F = 25 \text{ кН}, P = 2 \text{ кН}, m = 6 \text{ кНм}.$

Задача 29.10. 9

$F = 10 \text{ кН}, P = 4 \text{ кН}, m = 12 \text{ кНм}.$

Задача 29.11.

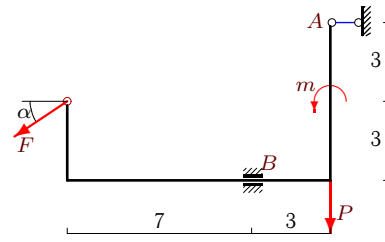
9



$F = 20 \text{ кН}, P = 4 \text{ кН}, m = 7 \text{ кНм}.$

Задача 29.12.

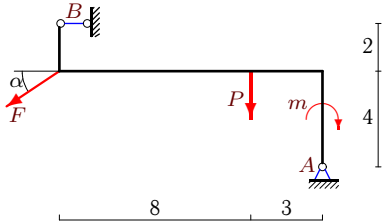
9



$F = 60 \text{ кН}, P = 12 \text{ кН}, m = 7 \text{ кНм}.$

Задача 29.13.

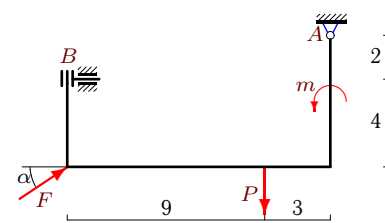
9



$F = 60 \text{ кН}, P = 3 \text{ кН}, m = 9 \text{ кНм}.$

Задача 29.14.

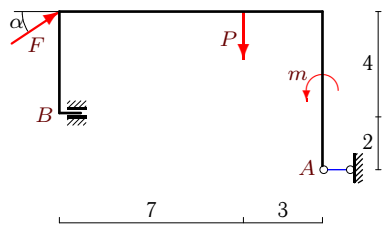
9



$F = 35 \text{ кН}, P = 11 \text{ кН}, m = 18 \text{ кНм}.$

Задача 29.15.

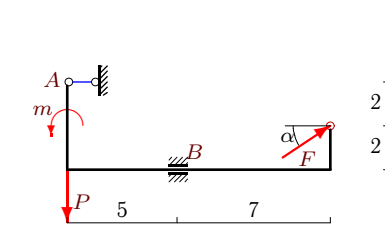
9



$F = 35 \text{ кН}, P = 11 \text{ кН}, m = 6 \text{ кНм}.$

Задача 29.16.

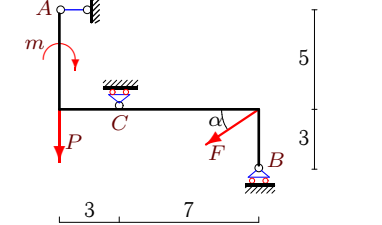
9



$F = 15 \text{ кН}, P = 24 \text{ кН}, m = 7 \text{ кНм}.$

Задача 29.17.

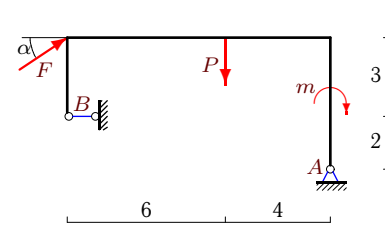
9



$F = 35 \text{ кН}, P = 3 \text{ кН}, m = 9 \text{ кНм}.$

Задача 29.18.

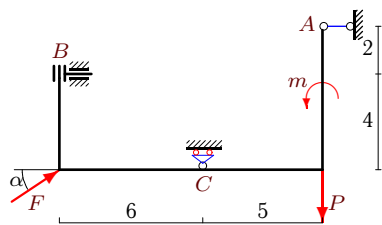
9



$F = 5 \text{ кН}, P = 1 \text{ кН}, m = 4 \text{ кНм}.$

Задача 29.19.

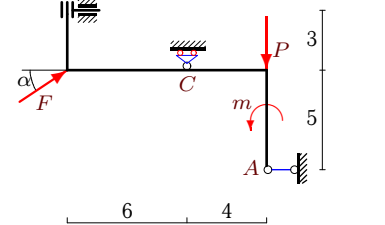
9



$F = 25 \text{ кН}, P = 2 \text{ кН}, m = 17 \text{ кНм}.$

Задача 29.20.

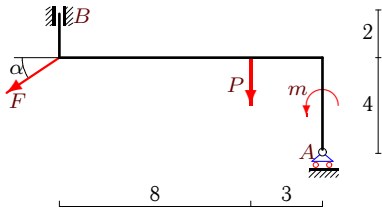
9



$F = 20 \text{ кН}, P = 2 \text{ кН}, m = 9 \text{ кНм}.$

Задача 29.21.

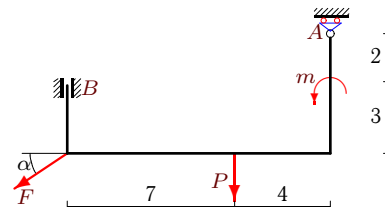
9



$F = 20 \text{ кН}, P = 3 \text{ кН}, m = 5 \text{ кНм}.$

Задача 29.22.

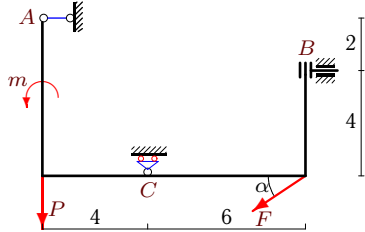
9



$F = 20 \text{ кН}, P = 3 \text{ кН}, m = 6 \text{ кНм}.$

Задача 29.23.

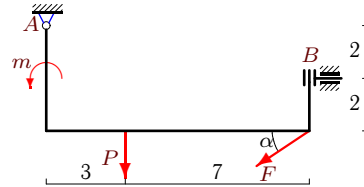
9



$F = 35 \text{ кН}, P = 3 \text{ кН}, m = 10 \text{ кНм}.$

Задача 29.24.

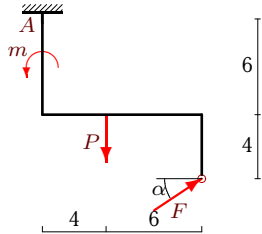
9



$F = 35 \text{ кН}, P = 4 \text{ кН}, m = 6 \text{ кНм}.$

Задача 29.25.

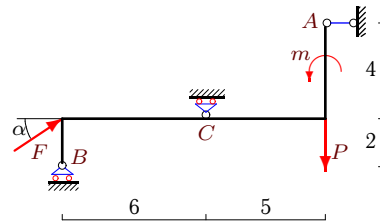
9



$F = 20 \text{ кН}, P = 1 \text{ кН}, m = 5 \text{ кНм}.$

Задача 29.26.

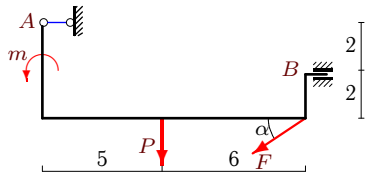
9



$F = 60 \text{ кН}, P = 5 \text{ кН}, m = 25 \text{ кНм}.$

Задача 29.27.

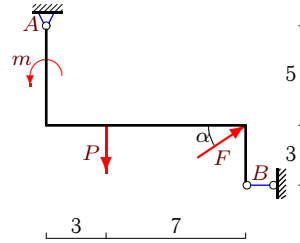
9



$F = 35 \text{ кН}, P = 6 \text{ кН}, m = 7 \text{ кНм}.$

Задача 29.28.

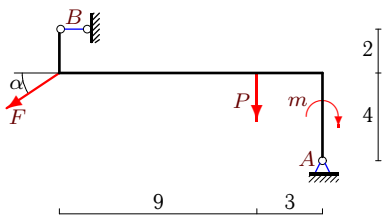
9



$F = 40 \text{ кН}, P = 1 \text{ кН}, m = 3 \text{ кНм}.$

Задача 29.29.

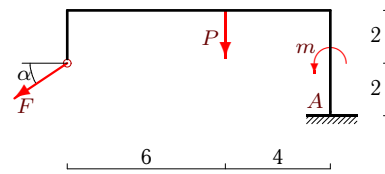
9



$F = 15 \text{ кН}, P = 2 \text{ кН}, m = 6 \text{ кНм}.$

Задача 29.30.

9



$F = 30 \text{ кН}, P = 4 \text{ кН}, m = 3 \text{ кНм}.$

Равновесие рамы

№	X_A	Y_A	M_A	X_B	Y_B	M_B	Y_C
1	24	—	—	—	27	170	—
2	—	11	—	12	—	-171	—
3	24	—	—	—	—	-271	21
4	-41	-14	—	17	—	—	—
5	-24	—	—	—	-15	88	—
6	28	—	—	—	26	140	—
7	40	32	-97	—	—	—	—
8	—	14	—	12	—	-89	—
9	-20	-13	—	—	—	-230	—
10	41	-2	—	-49	—	—	—
11	16	16	-67	—	—	—	—
12	48	—	—	—	48	-79	—
13	-50	39	—	98	—	—	—
14	-28	-10	—	—	—	33	—
15	-28	—	—	—	-10	239	—
16	-12	—	—	—	15	-214	—
17	28	—	—	—	41	—	-17
18	21	-2	—	-25	—	—	—
19	-20	—	—	—	—	-37	-13
20	-16	—	—	—	—	151	-10
21	—	15	—	16	—	-114	—
22	—	15	—	16	—	-102	—
23	28	—	—	—	—	272	24
24	28	25	—	—	—	328	—
25	-16	-11	-281	—	—	—	—
26	-48	—	—	—	-4	—	-27
27	28	—	—	—	27	69	—
28	18	-23	—	-50	—	—	—
29	-14	11	—	26	—	—	—
30	24	22	-247	—	—	—	—