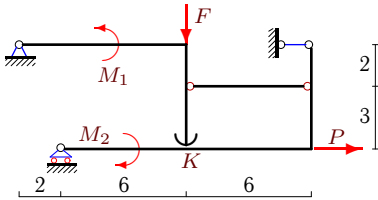


## Система с односторонней связью

Рама, состоящая из двух частей, содержит одностороннюю связь (гладкая опора в точке  $K$ ). Размеры на рисунке даны в метрах. Для каких значений силы  $F$  система находится в положении равновесия?

**Задача S-37.1.**

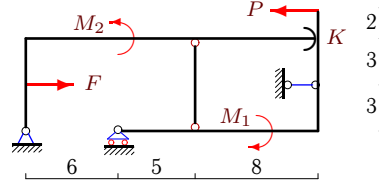
2



$$P = 8 \text{ кН}, M_1 = M_2 = 26 \text{ кНм.}$$

**Задача S-37.2.**

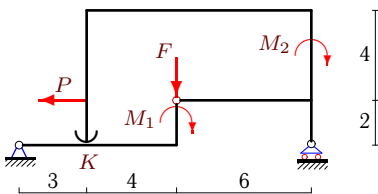
2



$$P = 3 \text{ кН}, M_1 = 5 \text{ кНм}, M_2 = 11 \text{ кНм.}$$

**Задача S-37.3.**

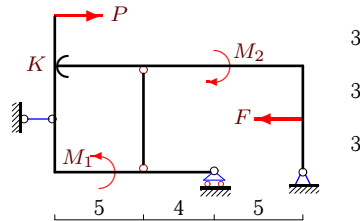
2



$$P = 7 \text{ кН}, M_1 = 42 \text{ кНм}, M_2 = 36 \text{ кНм.}$$

**Задача S-37.4.**

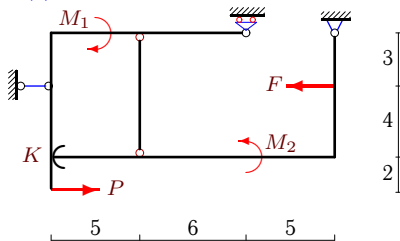
2



$$P = 6 \text{ кН}, M_1 = 8 \text{ кНм}, M_2 = 18 \text{ кНм.}$$

**Задача S-37.5.**

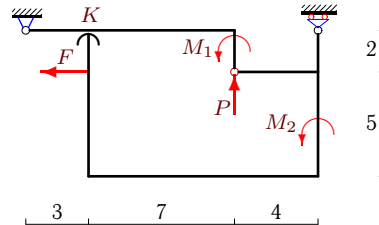
2



$$P = 6 \text{ кН}, M_1 = 6 \text{ кНм}, M_2 = 11 \text{ кНм.}$$

**Задача S-37.6.**

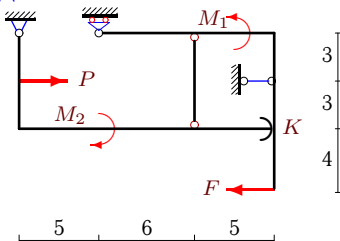
2



$$P = 20 \text{ кН}, M_1 = 35 \text{ кНм}, M_2 = 14 \text{ кНм.}$$

**Задача S-37.7.**

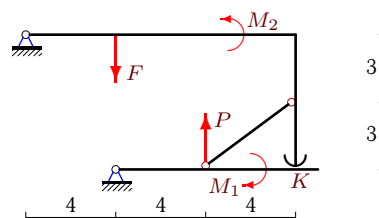
2



$$P = 77 \text{ кН}, M_1 = 18 \text{ кНм}, M_2 = 33 \text{ кНм.}$$

**Задача S-37.8.**

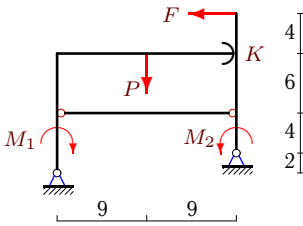
2



$$P = 2 \text{ кН}, M_1 = 1 \text{ кНм}, M_2 = 4 \text{ кНм.}$$

**Задача S-37.9.**

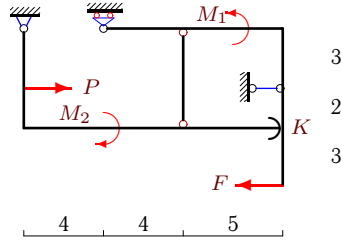
2



$P = 7 \text{ кН}, M_1 = 3 \text{ кНм}, M_2 = 2 \text{ кНм}.$

**Задача S-37.10.**

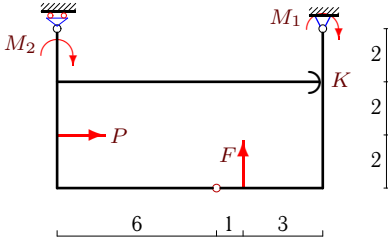
2



$P = 10 \text{ кН}, M_1 = 5 \text{ кНм}, M_2 = 10 \text{ кНм}.$

**Задача S-37.11.**

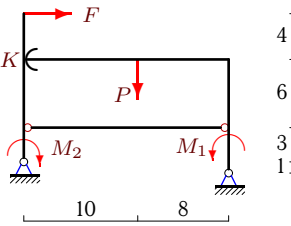
2



$P = 9 \text{ кН}, M_1 = 12 \text{ кНм}, M_2 = 18 \text{ кНм}.$

**Задача S-37.12.**

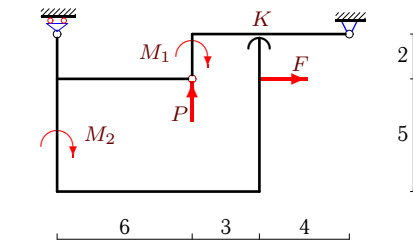
2



$P = 52 \text{ кН}, M_1 = 36 \text{ кНм}, M_2 = 27 \text{ кНм}.$

**Задача S-37.13.**

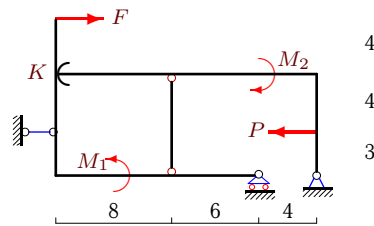
2



$P = 14 \text{ кН}, M_1 = 77 \text{ кНм}, M_2 = 66 \text{ кНм}.$

**Задача S-37.14.**

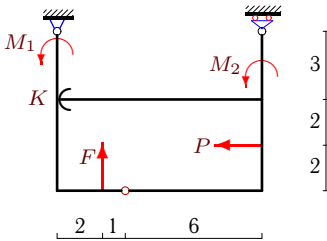
2



$P = 40 \text{ кН}, M_1 = 15 \text{ кНм}, M_2 = 25 \text{ кНм}.$

**Задача S-37.15.**

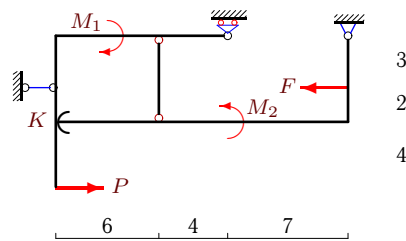
2



$P = 4 \text{ кН}, M_1 = 3 \text{ кНм}, M_2 = 6 \text{ кНм}.$

**Задача S-37.16.**

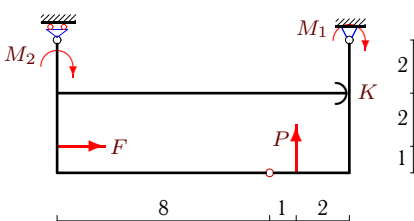
2



$P = 12 \text{ кН}, M_1 = 20 \text{ кНм}, M_2 = 55 \text{ кНм}.$

**Задача S-37.17.**

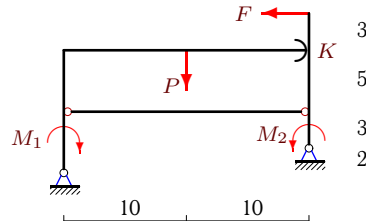
2



$P = 43 \text{ кН}, M_1 = 12 \text{ кНм}, M_2 = 32 \text{ кНм}.$

**Задача S-37.18.**

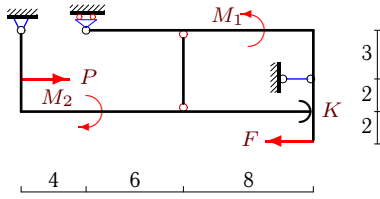
2



$P = 55 \text{ кН}, M_1 = 20 \text{ кНм}, M_2 = 12 \text{ кНм}.$

**Задача S-37.19.**

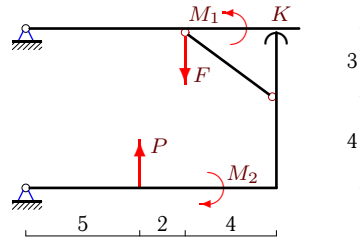
2



$P = 20 \text{ кН}, M_1 = 18 \text{ кНм}, M_2 = 30 \text{ кНм}.$

**Задача S-37.20.**

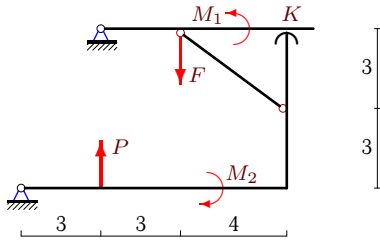
2



$P = 49 \text{ кН}, M_1 = 42 \text{ кНм}, M_2 = 98 \text{ кНм}.$

**Задача S-37.21.**

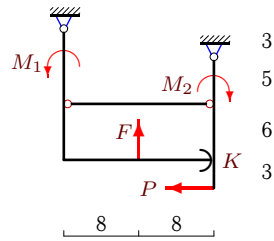
2



$P = 14 \text{ кН}, M_1 = 3 \text{ кНм}, M_2 = 14 \text{ кНм}.$

**Задача S-37.22.**

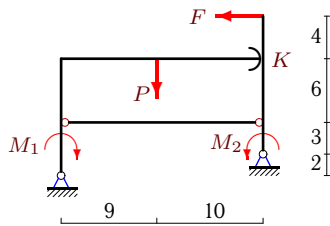
2



$P = 40 \text{ кН}, M_1 = 8 \text{ кНм}, M_2 = 5 \text{ кНм}.$

**Задача S-37.23.**

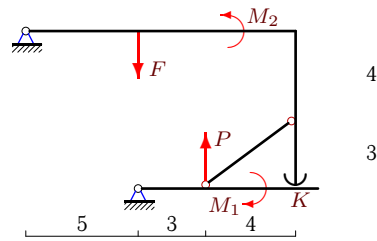
2



$P = 65 \text{ кН}, M_1 = 25 \text{ кНм}, M_2 = 15 \text{ кНм}.$

**Задача S-37.24.**

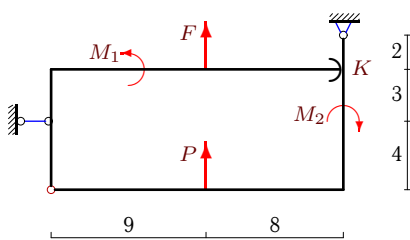
2



$P = 15 \text{ кН}, M_1 = 18 \text{ кНм}, M_2 = 104 \text{ кНм}.$

**Задача S-37.25.**

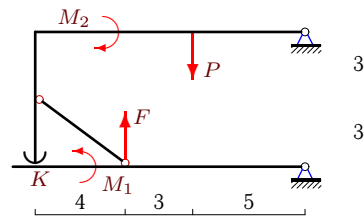
2



$P = 13 \text{ кН}, M_1 = 16 \text{ кНм}, M_2 = 36 \text{ кНм}.$

**Задача S-37.26.**

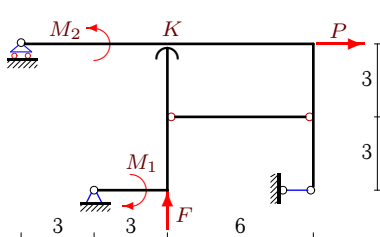
2



$P = 16 \text{ кН}, M_1 = 8 \text{ кНм}, M_2 = 16 \text{ кНм}.$

**Задача S-37.27.**

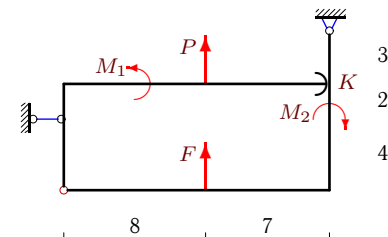
2



$P = 3 \text{ кН}, M_1 = M_2 = 17 \text{ кНм}.$

**Задача S-37.28.**

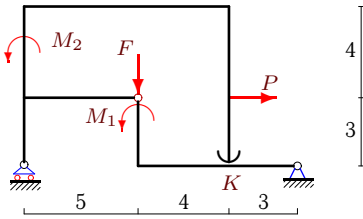
2



$P = 7 \text{ кН}, M_1 = 4 \text{ кНм}, M_2 = 9 \text{ кНм}.$

**Задача S-37.29.**

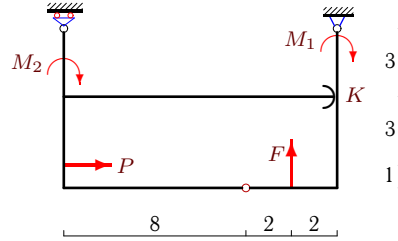
2



$$P = 7 \text{ кН}, M_1 = 42 \text{ кНм}, M_2 = 30 \text{ кНм}.$$

**Задача S-37.30.**

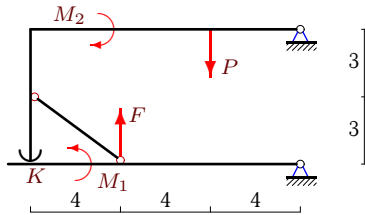
2



$$P = 4 \text{ кН}, M_1 = 5 \text{ кНм}, M_2 = 10 \text{ кНм}.$$

**Задача S-37.31.**

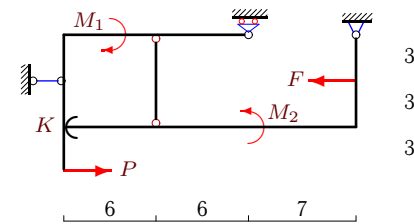
2



$$P = 4 \text{ кН}, M_1 = 2 \text{ кНм}, M_2 = 4 \text{ кНм}.$$

**Задача S-37.32.**

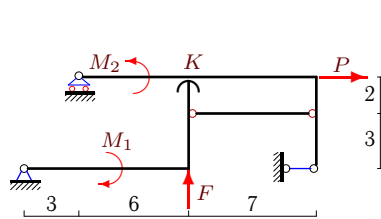
2



$$P = 9 \text{ кН}, M_1 = 6 \text{ кНм}, M_2 = 13 \text{ кНм}.$$

**Задача S-37.33.**

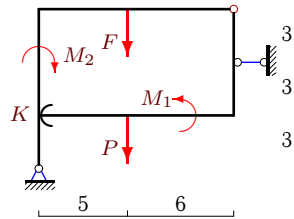
2



$$P = 9 \text{ кН}, M_1 = M_2 = 30 \text{ кНм}.$$

**Задача S-37.34.**

2



$$P = 5 \text{ кН}, M_1 = 3 \text{ кНм}, M_2 = 9 \text{ кНм}.$$

S-37

**Ответы.****Система с односторонней связью**

13.03.2014

№	$F$
1	$F > 5 \text{ кН}$
2	$F < 11 \text{ кН}$
3	$F > 2 \text{ кН}$
4	$F < 27 \text{ кН}$
5	$F < 22 \text{ кН}$
6	$F < 4 \text{ кН}$
7	$F > 18 \text{ кН}$
8	$F < 8 \text{ кН}$
9	$F > 3 \text{ кН}$
10	$F > 3 \text{ кН}$
11	$F < 22 \text{ кН}$
12	$F > 24 \text{ кН}$
13	$F < 4 \text{ кН}$
14	$F > 9 \text{ кН}$
15	$F < 16 \text{ кН}$
16	$F < 66 \text{ кН}$
17	$F > 16 \text{ кН}$
18	$F > 30 \text{ кН}$
19	$F > 9 \text{ кН}$
20	$F > 15 \text{ кН}$
21	$F > 3 \text{ кН}$
22	$F < 112 \text{ кН}$
23	$F > 27 \text{ кН}$
24	$F < 52 \text{ кН}$
25	$F < 32 \text{ кН}$
26	$F > 5 \text{ кН}$
27	$F > 6 \text{ кН}$
28	$F > 3 \text{ кН}$
29	$F > 3 \text{ кН}$
30	$F < 15 \text{ кН}$
31	$F > 1 \text{ кН}$
32	$F < 39 \text{ кН}$
33	$F > 5 \text{ кН}$
34	$F > 7 \text{ кН}$

S-37 файл о37s2A