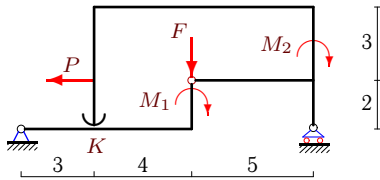


## Система с односторонней связью

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.**

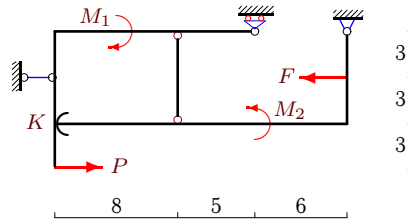
3



$$P = 14 \text{ кН}, M_1 = 21 \text{ кНм}, M_2 = 15 \text{ кНм}.$$

**Задача S-37.2.**

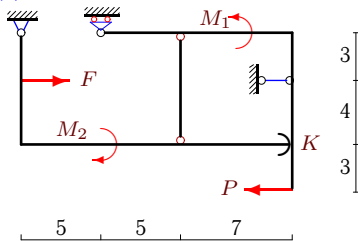
3



$$P = 15 \text{ кН}, M_1 = 25 \text{ кНм}, M_2 = 55 \text{ кНм}.$$

**Задача S-37.3.**

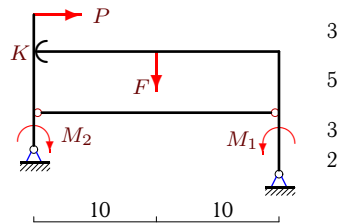
3



$$P = 3 \text{ кН}, M_1 = 4 \text{ кНм}, M_2 = 8 \text{ кНм}.$$

**Задача S-37.4.**

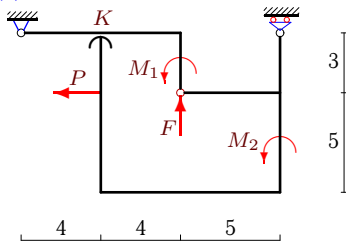
3



$$P = 30 \text{ кН}, M_1 = 45 \text{ кНм}, M_2 = 27 \text{ кНм}.$$

**Задача S-37.5.**

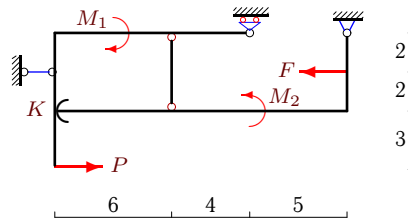
3



$$P = 8 \text{ кН}, M_1 = 88 \text{ кНм}, M_2 = 55 \text{ кНм}.$$

**Задача S-37.6.**

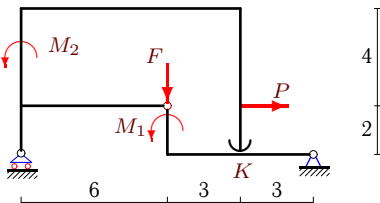
3



$$P = 8 \text{ кН}, M_1 = 12 \text{ кНм}, M_2 = 27 \text{ кНм}.$$

**Задача S-37.7.**

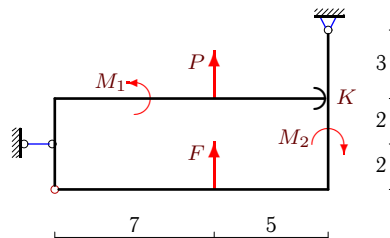
3



$$P = 6 \text{ кН}, M_1 = 15 \text{ кНм}, M_2 = 15 \text{ кНм}.$$

**Задача S-37.8.**

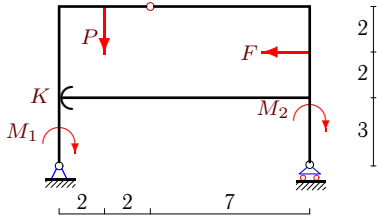
3



$$P = 10 \text{ кН}, M_1 = 6 \text{ кНм}, M_2 = 21 \text{ кНм}.$$

**Задача S-37.9.**

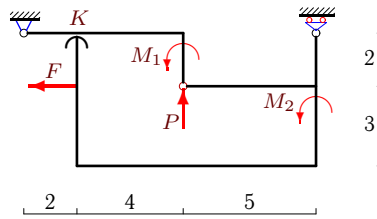
3



$P = 57 \text{ кН}, M_1 = 16 \text{ кНм}, M_2 = 28 \text{ кНм}.$

**Задача S-37.10.**

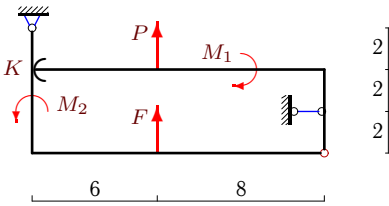
3



$P = 12 \text{ кН}, M_1 = 6 \text{ кНм}, M_2 = 5 \text{ кНм}.$

**Задача S-37.11.**

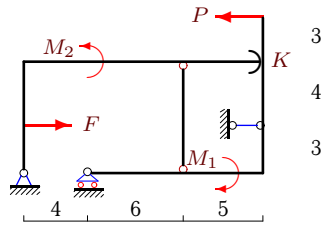
3



$P = 6 \text{ кН}, M_1 = 1 \text{ кНм}, M_2 = 3 \text{ кНм}.$

**Задача S-37.12.**

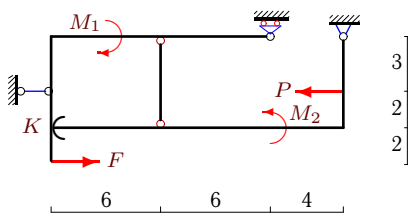
3



$P = 9 \text{ кН}, M_1 = 15 \text{ кНм}, M_2 = 25 \text{ кНм}.$

**Задача S-37.13.**

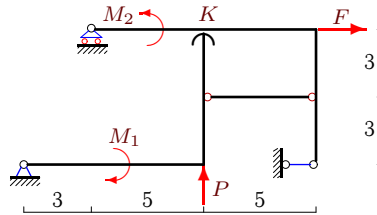
3



$P = 20 \text{ кН}, M_1 = 15 \text{ кНм}, M_2 = 25 \text{ кНм}.$

**Задача S-37.14.**

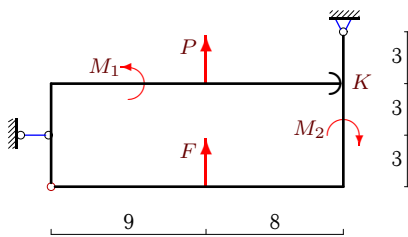
3



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

**Задача S-37.15.**

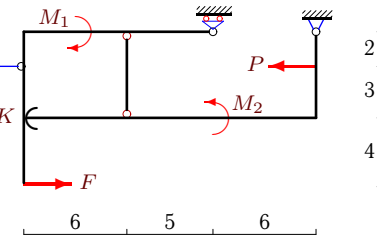
3



$P = 8 \text{ кН}, M_1 = 3 \text{ кНм}, M_2 = 9 \text{ кНм}.$

**Задача S-37.16.**

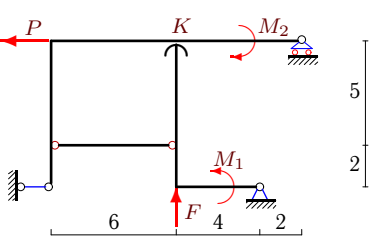
3



$P = 77 \text{ кН}, M_1 = 25 \text{ кНм}, M_2 = 55 \text{ кНм}.$

**Задача S-37.17.**

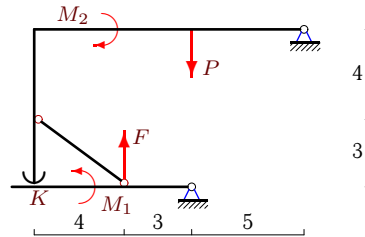
3



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

**Задача S-37.18.**

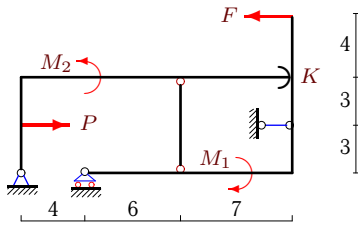
3



$P = 52 \text{ кН}, M_1 = 9 \text{ кНм}, M_2 = 52 \text{ кНм}.$

**Задача S-37.19.**

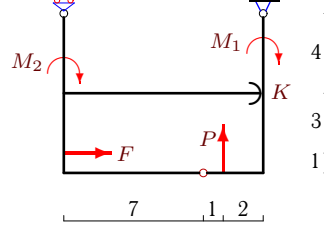
3



$P = 35 \text{ кН}, M_1 = 12 \text{ кНм}, M_2 = 20 \text{ кНм}.$

**Задача S-37.20.**

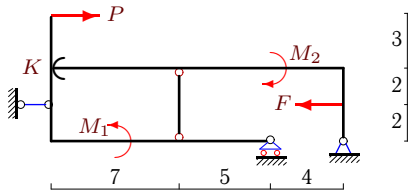
3



$P = 59 \text{ кН}, M_1 = 21 \text{ кНм}, M_2 = 49 \text{ кНм}.$

**Задача S-37.21.**

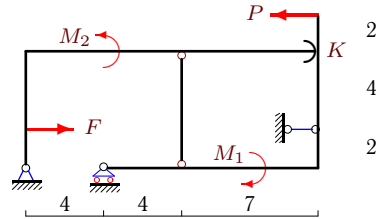
3



$P = 10 \text{ кН}, M_1 = 10 \text{ кНм}, M_2 = 18 \text{ кНм}.$

**Задача S-37.22.**

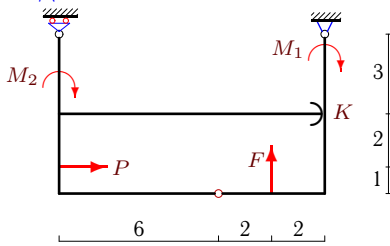
3



$P = 2 \text{ кН}, M_1 = 3 \text{ кНм}, M_2 = 6 \text{ кНм}.$

**Задача S-37.23.**

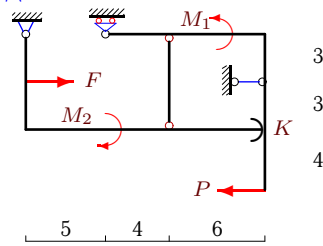
3



$P = 6 \text{ кН}, M_1 = 10 \text{ кНм}, M_2 = 15 \text{ кНм}.$

**Задача S-37.24.**

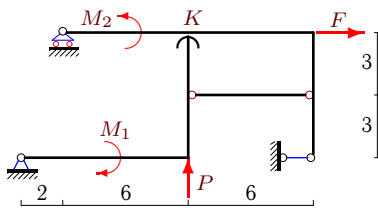
3



$P = 12 \text{ кН}, M_1 = 8 \text{ кНм}, M_2 = 18 \text{ кНм}.$

**Задача S-37.25.**

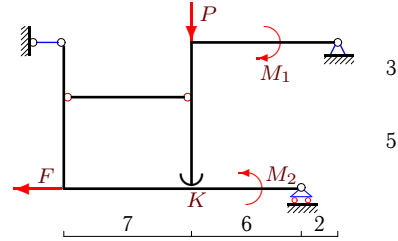
3



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

**Задача S-37.26.**

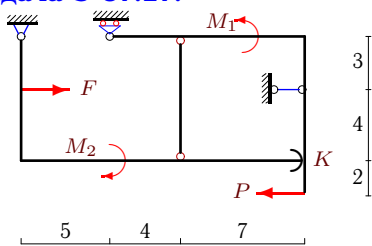
3



$P = 4 \text{ кН}, M_1 = M_2 = 16 \text{ кНм}.$

**Задача S-37.27.**

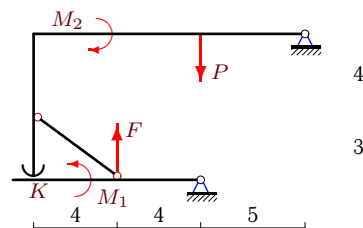
3



$P = 6 \text{ кН}, M_1 = 4 \text{ кНм}, M_2 = 9 \text{ кНм}.$

**Задача S-37.28.**

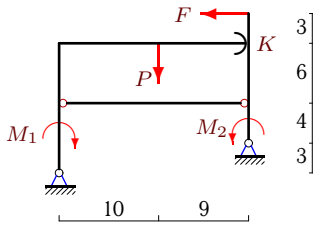
3



$P = 55 \text{ кН}, M_1 = 24 \text{ кНм}, M_2 = 110 \text{ кНм}.$

**Задача S-37.29.**

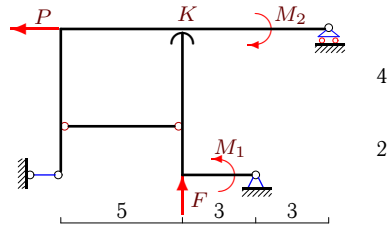
3



$$P = 91 \text{ кН}, M_1 = 35 \text{ кНм}, M_2 = 20 \text{ кНм}.$$

**Задача S-37.30.**

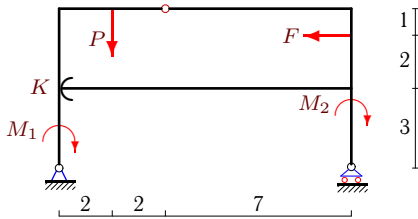
3



$$P = 1 \text{ кН}, M_1 = M_2 = 8 \text{ кНм}.$$

**Задача S-37.31.**

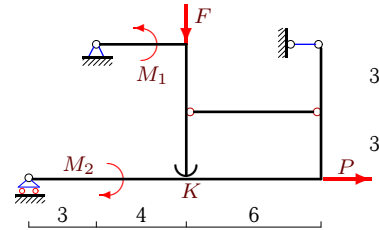
3



$$P = 46 \text{ кН}, M_1 = 12 \text{ кНм}, M_2 = 21 \text{ кНм}.$$

**Задача S-37.32.**

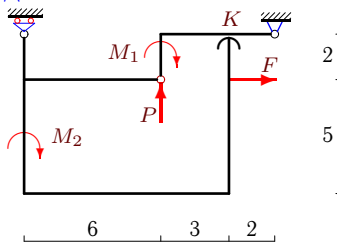
3



$$P = 2 \text{ кН}, M_1 = M_2 = 13 \text{ кНм}.$$

**Задача S-37.33.**

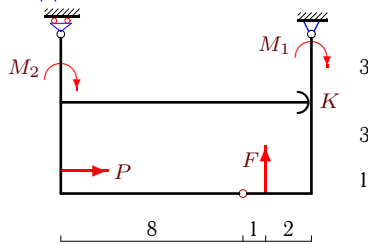
3



$$P = 5 \text{ кН}, M_1 = 55 \text{ кНм}, M_2 = 66 \text{ кНм}.$$

**Задача S-37.34.**

3



$$P = 16 \text{ кН}, M_1 = 9 \text{ кНм}, M_2 = 24 \text{ кНм}.$$

S-37

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

13.03.2014

№	$F$
1	$F > 4$ кН
2	$F < 66$ кН
3	$F < 14$ кН
4	$F < 55$ кН
5	$F > 3$ кН
6	$F < 45$ кН
7	$F > 2$ кН
8	$F > 25$ кН
9	$F > 14$ кН
10	$F < 4$ кН
11	$F > 10$ кН
12	$F < 35$ кН
13	$F > 9$ кН
14	$F < 4$ кН
15	$F > 10$ кН
16	$F > 10$ кН
17	$F > 7$ кН
18	$F > 15$ кН
19	$F > 9$ кН
20	$F > 14$ кН
21	$F < 45$ кН
22	$F < 12$ кН
23	$F < 20$ кН
24	$F < 63$ кН
25	$F < 4$ кН
26	$F < 4$ кН
27	$F < 27$ кН
28	$F > 15$ кН
29	$F > 40$ кН
30	$F > 2$ кН
31	$F > 14$ кН
32	$F > 3$ кН
33	$F < 2$ кН
34	$F < 59$ кН

S-37 файл о37с3А