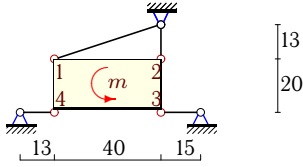


# Статически неопределимая стержневая система (1)

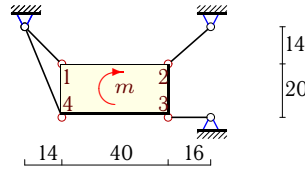
Однородная пластина весом  $P$  удерживается в вертикальной плоскости четырьмя стержнями одинаковой жесткости. На пластину действует момент  $m$ . Размеры даны в см. Найти усилия в стержнях.

**Задача 23.1.** 2



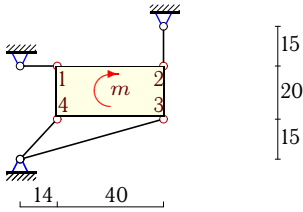
$P = 8 \text{ Н}$ ,  $m = 0.07 \text{ Нм}$ .

**Задача 23.2.** 2



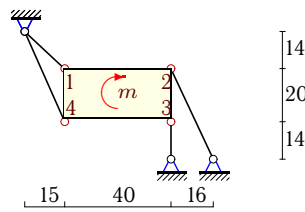
$P = 6 \text{ Н}$ ,  $m = 0.09 \text{ Нм}$ .

**Задача 23.3.** 2



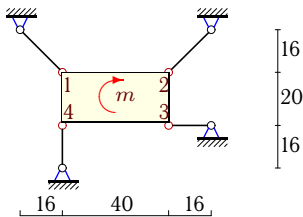
$P = 5 \text{ Н}$ ,  $m = 0.14 \text{ Нм}$ .

**Задача 23.4.** 2



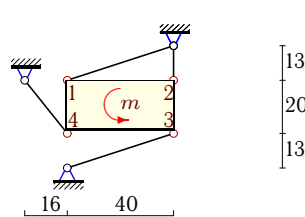
$P = 6 \text{ Н}$ ,  $m = 0.15 \text{ Нм}$ .

**Задача 23.5.** 2



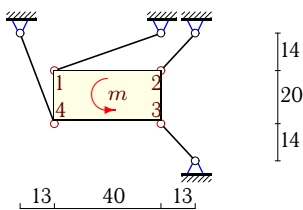
$P = 6 \text{ Н}$ ,  $m = 0.09 \text{ Нм}$ .

**Задача 23.6.** 2



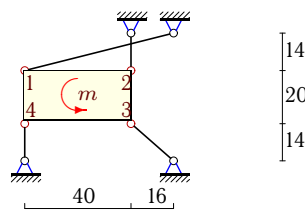
$P = 8 \text{ Н}$ ,  $m = 0.07 \text{ Нм}$ .

**Задача 23.7.** 2



$P = 8 \text{ Н}$ ,  $m = 0.09 \text{ Нм}$ .

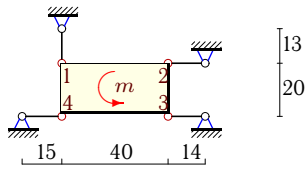
**Задача 23.8.** 2



$P = 9 \text{ Н}$ ,  $m = 0.14 \text{ Нм}$ .

**Задача 23.9.**

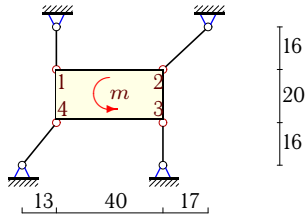
2



$P = 7 \text{ Н}$ ,  $m = 0.1 \text{ Нм}$ .

**Задача 23.11.**

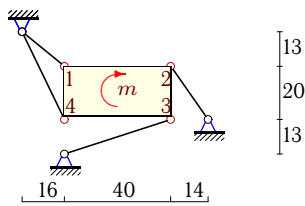
2



$P = 7 \text{ Н}$ ,  $m = 0.1 \text{ Нм}$ .

**Задача 23.13.**

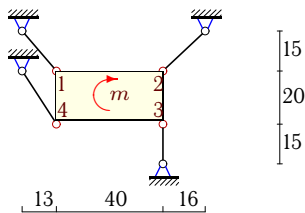
2



$P = 6 \text{ Н}$ ,  $m = 0.13 \text{ Нм}$ .

**Задача 23.15.**

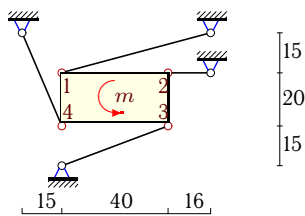
2



$P = 6 \text{ Н}$ ,  $m = 0.09 \text{ Нм}$ .

**Задача 23.17.**

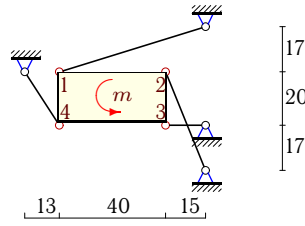
2



$P = 9 \text{ Н}$ ,  $m = 0.22 \text{ Нм}$ .

**Задача 23.10.**

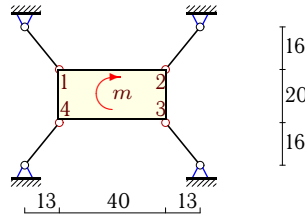
2



$P = 9 \text{ Н}$ ,  $m = 0.3 \text{ Нм}$ .

**Задача 23.12.**

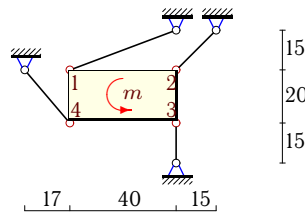
2



$P = 6 \text{ Н}$ ,  $m = 0.09 \text{ Нм}$ .

**Задача 23.14.**

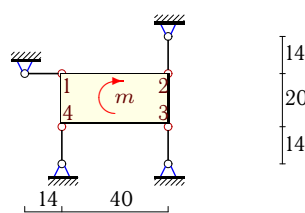
2



$P = 8 \text{ Н}$ ,  $m = 0.09 \text{ Нм}$ .

**Задача 23.16.**

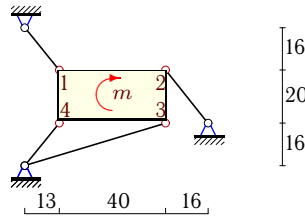
2



$P = 5 \text{ Н}$ ,  $m = 0.14 \text{ Нм}$ .

**Задача 23.18.**

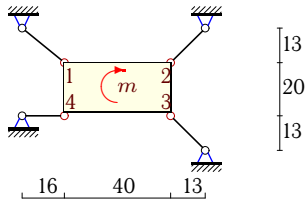
2



$P = 6 \text{ Н}$ ,  $m = 0.13 \text{ Нм}$ .

**Задача 23.19.**

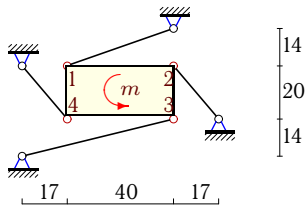
2



$P = 6 \text{ Н}, m = 0.09 \text{ Нм.}$

**Задача 23.21.**

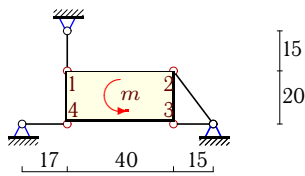
2



$P = 8 \text{ Н}, m = 0.13 \text{ Нм.}$

**Задача 23.23.**

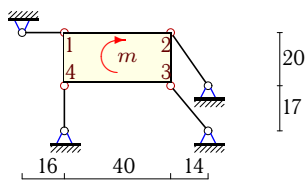
2



$P = 7 \text{ Н}, m = 0.1 \text{ Нм.}$

**Задача 23.25.**

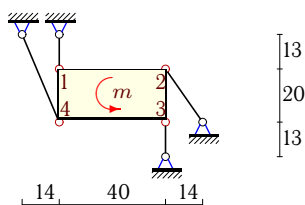
2



$P = 5 \text{ Н}, m = 0.26 \text{ Нм.}$

**Задача 23.27.**

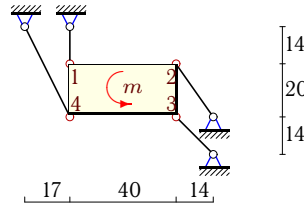
2



$P = 7 \text{ Н}, m = 0.1 \text{ Нм.}$

**Задача 23.20.**

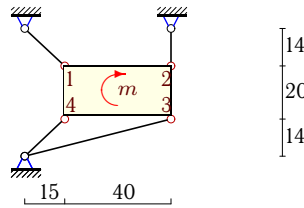
2



$P = 7 \text{ Н}, m = 0.1 \text{ Нм.}$

**Задача 23.22.**

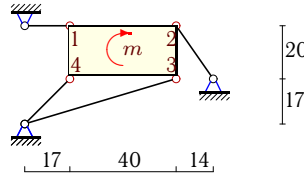
2



$P = 6 \text{ Н}, m = 0.07 \text{ Нм.}$

**Задача 23.24.**

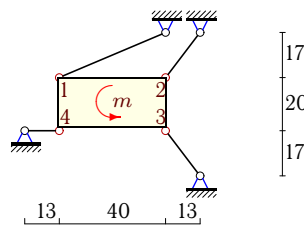
2



$P = 5 \text{ Н}, m = 0.26 \text{ Нм.}$

**Задача 23.26.**

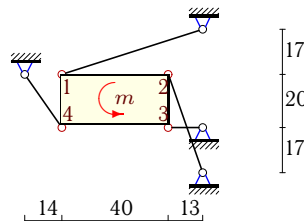
2



$P = 8 \text{ Н}, m = 0.09 \text{ Нм.}$

**Задача 23.28.**

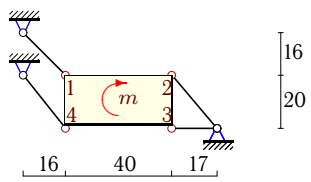
2



$P = 9 \text{ Н}, m = 0.3 \text{ Нм.}$

Задача 23.29.

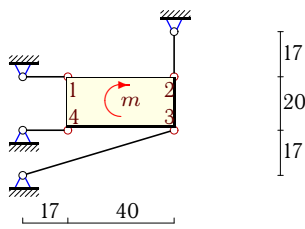
2



$P = 6 \text{ Н}, m = 0.13 \text{ Нм}.$

Задача 23.30.

2



$P = 5 \text{ Н}, m = 0.14 \text{ Нм}.$

**Статически неопределимая стержневая система (1)**

№	$S_1$	$S_2$	$S_3$	$S_4$
1	5.321	6.355	-2.350	2.711
2	5.633	4.370	0.340	-0.931
3	1.200	2.630	1.419	-3.761
4	-1.230	0.828	-4.751	3.102
5	4.561	4.561	-0.000	0.450
6	1.769	4.488	-0.576	3.569
7	0.802	3.803	-3.631	2.449
8	0.689	3.899	-0.889	-4.348
9	7.000	-6.500	3.362	-3.138
10	1.682	-4.085	2.994	5.626
11	3.608	-0.267	-3.336	-0.308
12	1.689	2.177	-2.177	-1.689
13	0.934	-1.750	-3.322	3.279
14	0.990	1.960	-3.546	3.571
15	1.138	2.309	-2.115	1.724
16	-0.000	1.425	-1.425	-2.150
17	0.465	-3.755	-6.543	7.161
18	2.094	-2.228	-0.791	-3.100
19	3.852	5.207	0.156	0.803
20	6.895	-4.311	2.147	-2.134
21	3.380	-4.356	-2.267	3.969
22	2.708	2.218	0.132	-2.883
23	4.636	-2.955	0.942	-0.831
24	0.462	-2.855	0.835	-4.101
25	-2.697	-2.988	-1.546	-1.358
26	3.430	4.297	-4.085	3.285
27	3.394	0.217	-3.490	0.319
28	1.753	-4.133	2.896	5.572
29	2.492	-2.251	5.238	3.231
30	-4.300	5.171	0.598	3.727