

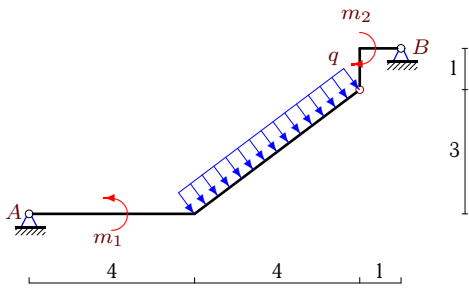
Простая составная рама с распределенной нагрузкой

Конструкция состоит из двух частей, соединенных шарнирно. Определить реакции опор (в кН). Размеры даны в метрах.

Кирсанов М.Н. Задачи по теоретической механике с решениями в **Maple 11**. – М.: ФИЗМАТЛИТ, 2010. – 264 с. (с.15)

Задача S33.1.

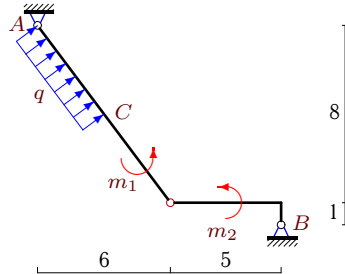
3



$$q = 2 \text{ кН/м}, m_1 = 5 \text{ кНм}, m_2 = 9 \text{ кНм}.$$

Задача S33.2.

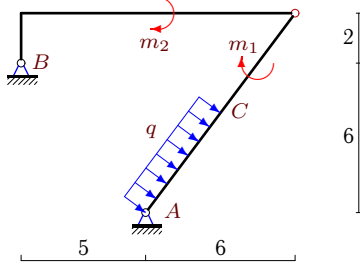
3



$$AC = 5 \text{ м}, q = 2 \text{ кН/м}, \\ m_1 = 143 \text{ кНм}, m_2 = 72 \text{ кНм}.$$

Задача S33.3.

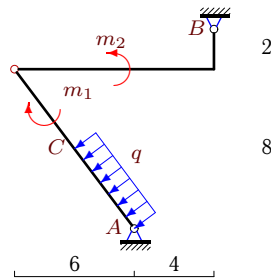
3



$$AC = 5 \text{ м}, q = 2 \text{ кН/м}, \\ m_1 = 151 \text{ кНм}, m_2 = 70 \text{ кНм}.$$

Задача S33.4.

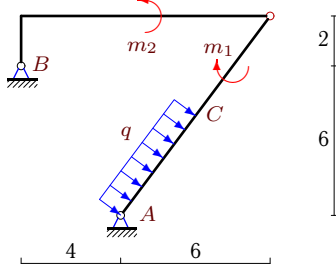
3



$$AC = 5 \text{ м}, q = 2 \text{ кН/м}, \\ m_1 = 17 \text{ кНм}, m_2 = 48 \text{ кНм}.$$

Задача S33.5.

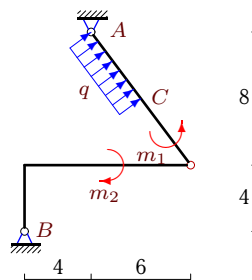
3



$$AC = 5 \text{ м}, q = 2 \text{ кН/м}, \\ m_1 = 109 \text{ кНм}, m_2 = 42 \text{ кНм}.$$

Задача S33.6.

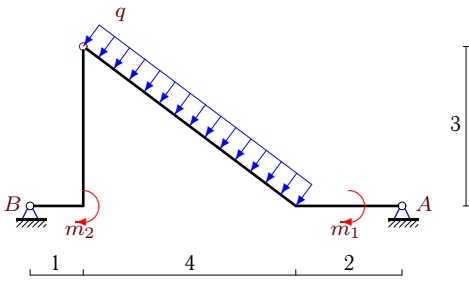
3



$$AC = 5 \text{ м}, q = 2 \text{ кН/м}, \\ m_1 = 23 \text{ кНм}, m_2 = 132 \text{ кНм}.$$

Задача S33.7.

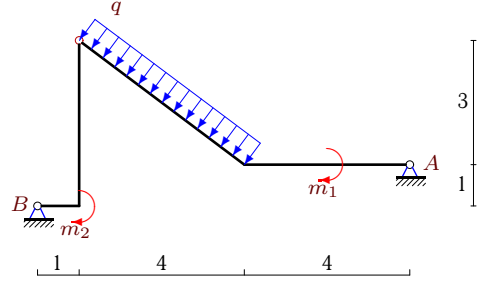
3



$q = 6 \text{ кН/м}$, $m_1 = 3 \text{ кНм}$, $m_2 = 36 \text{ кНм}$.

Задача S33.8.

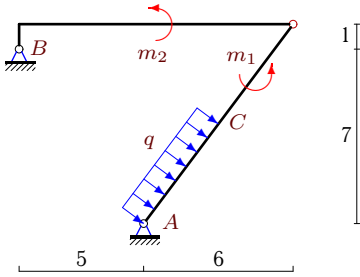
3



$q = 2 \text{ кН/м}$, $m_1 = 2 \text{ кНм}$, $m_2 = 15 \text{ кНм}$.

Задача S33.9.

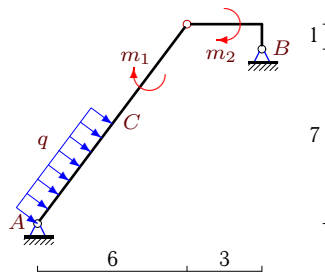
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 7 \text{ кНм}$, $m_2 = 33 \text{ кНм}$.

Задача S33.10.

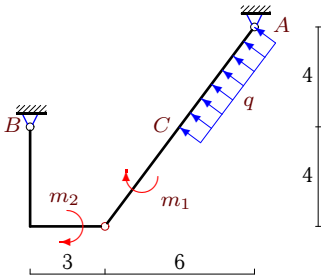
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 45 \text{ кНм}$, $m_2 = 70 \text{ кНм}$.

Задача S33.11.

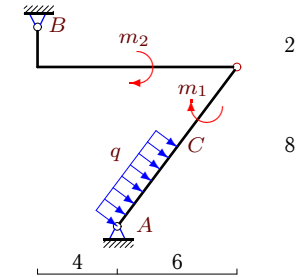
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 27 \text{ кНм}$, $m_2 = 34 \text{ кНм}$.

Задача S33.12.

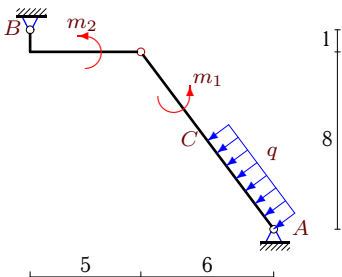
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 167 \text{ кНм}$, $m_2 = 2 \text{ кНм}$.

Задача S33.13.

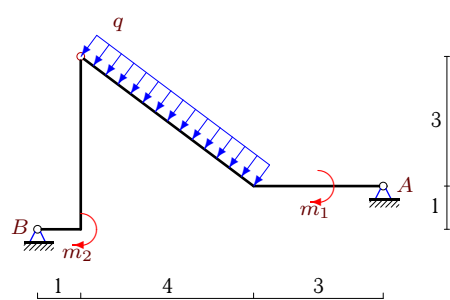
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 109 \text{ кНм}$, $m_2 = 4 \text{ кНм}$.

Задача S33.14.

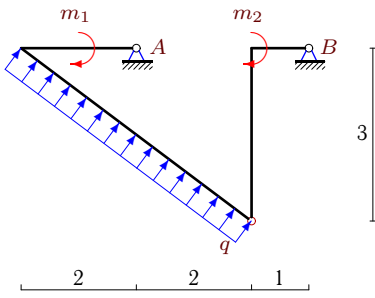
3



$q = 2 \text{ кН/м}$, $m_1 = 3 \text{ кНм}$, $m_2 = 20 \text{ кНм}$.

Задача S33.15.

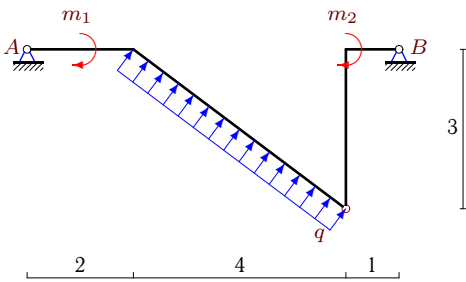
3



$q = 8 \text{ кН/м}$, $m_1 = 5 \text{ кНм}$, $m_2 = 88 \text{ кНм}$.

Задача S33.17.

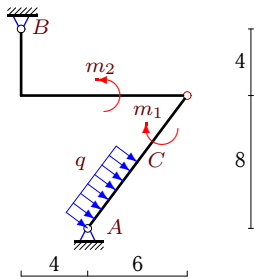
3



$q = 6 \text{ кН/м}$, $m_1 = 6 \text{ кНм}$, $m_2 = 47 \text{ кНм}$.

Задача S33.19.

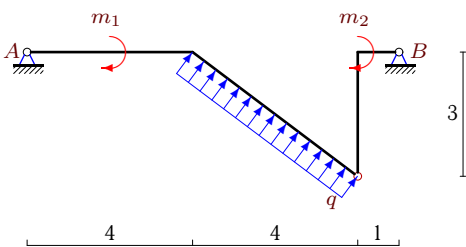
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 23 \text{ кНм}$, $m_2 = 80 \text{ кНм}$.

Задача S33.21.

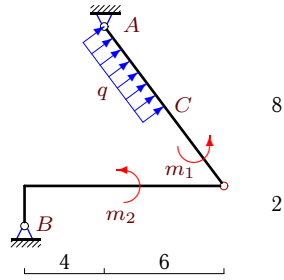
3



$q = 2 \text{ кН/м}$, $m_1 = 7 \text{ кНм}$, $m_2 = 14 \text{ кНм}$.

Задача S33.16.

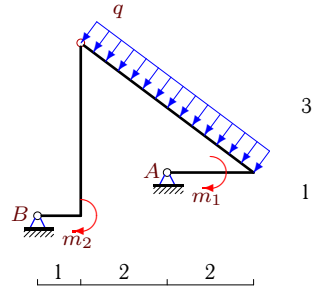
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 29 \text{ кНм}$, $m_2 = 2 \text{ кНм}$.

Задача S33.18.

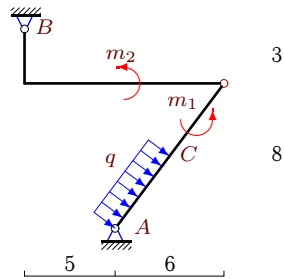
3



$q = 2 \text{ кН/м}$, $m_1 = 1 \text{ кНм}$, $m_2 = 29 \text{ кНм}$.

Задача S33.20.

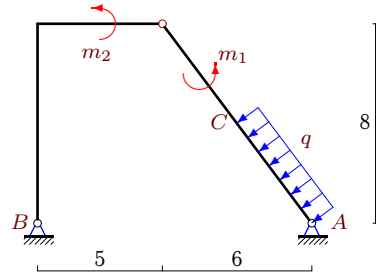
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 137 \text{ кНм}$, $m_2 = 254 \text{ кНм}$.

Задача S33.22.

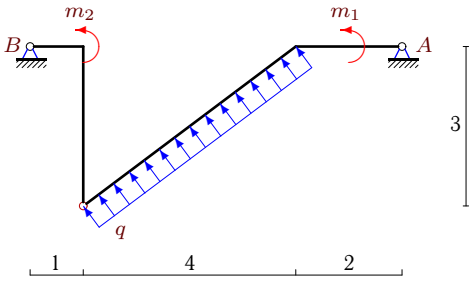
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 251 \text{ кНм}$, $m_2 = 54 \text{ кНм}$.

Задача S33.23.

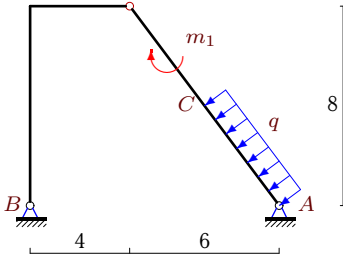
3



$q = 6 \text{ кН/м}$, $m_1 = 6 \text{ кНм}$, $m_2 = 47 \text{ кНм}$.

Задача S33.25.

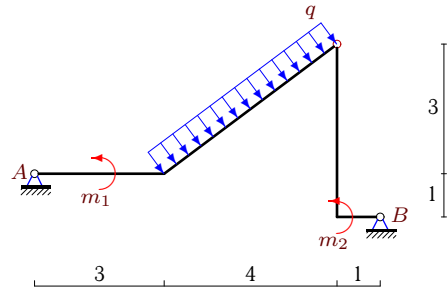
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 5 \text{ кНм}$,

Задача S33.24.

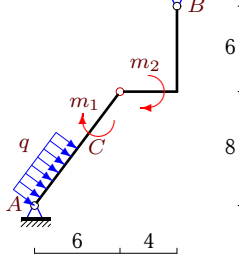
3



$q = 4 \text{ кН/м}$, $m_1 = 7 \text{ кНм}$, $m_2 = 49 \text{ кНм}$.

Задача S33.26.

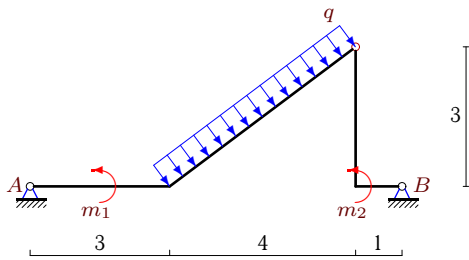
3



$AC = 5 \text{ м}$, $q = 2 \text{ кН/м}$,
 $m_1 = 77 \text{ кНм}$, $m_2 = 76 \text{ кНм}$.

Задача S33.27.

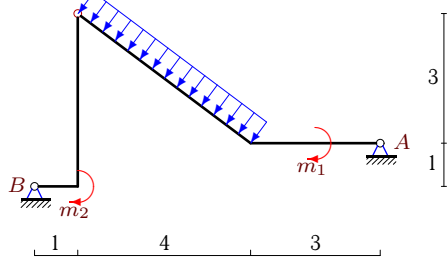
3



$q = 2 \text{ кН/м}$, $m_1 = 3 \text{ кНм}$, $m_2 = 14 \text{ кНм}$.

Задача S33.28.

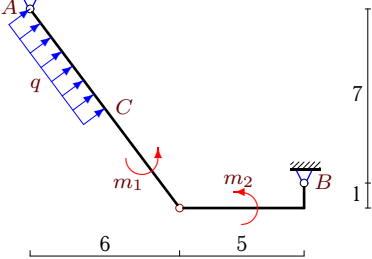
3



$q = 4 \text{ кН/м}$, $m_1 = 2 \text{ кНм}$, $m_2 = 35 \text{ кНм}$.

Задача S33.29.

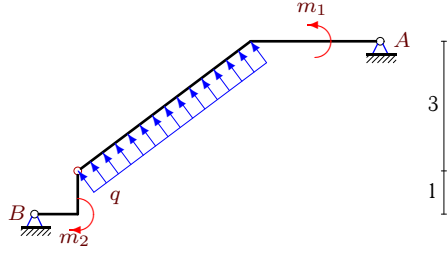
3



$AC = 5 \text{ м}$, $q = 4 \text{ кН/м}$,
 $m_1 = 196 \text{ кНм}$, $m_2 = 136 \text{ кНм}$.

Задача S33.30.

3



$q = 4 \text{ кН/м}$, $m_1 = 5 \text{ кНм}$, $m_2 = 19 \text{ кНм}$.

S33 Ответы.**Простая составная рама с распределенной нагрузкой** 10.06.2011

№	X_A	Y_A	X_B	Y_B
1	-2	3	-4	5
2	4	6	-12	-12
3	23	18	-31	-12
4	4	10	4	-4
5	8	5	-16	1
6	-11	6	3	-12
7	2	12	16	12
8	1	3	5	5
9	-8	3	0	3
10	-15	-15	7	21
11	9	4	-1	-10
12	13	2	-21	4
13	-11	9	19	-3
14	0	4	6	4
15	-1	-51	-23	19
16	-2	-5	-6	-1
17	1	-14	-19	-10
18	0	13	6	-5
19	-8	-2	0	8
20	-34	-10	26	16
21	0	-4	-6	-4
22	-4	-24	12	30
23	-1	-14	19	-10
24	2	9	-14	7
25	7	4	1	2
26	4	5	-12	1
27	0	4	-6	4
28	1	7	11	9
29	-7	17	-9	-29
30	2	-7	10	-9

S33 файл о33s3A