

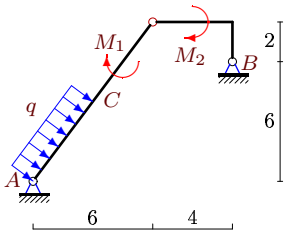
# Простая составная рама с распределенной нагрузкой

Конструкция состоит из двух частей, соединенных шарнирно. Определить реакции опор (в кН). Размеры даны в метрах, моменты в кНм, распределенные нагрузки в кН/м.

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

**Задача S-33.1.**

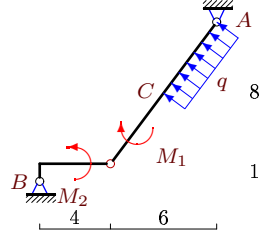
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$$AC = 5, q = 2, M_1 = 31, M_2 = 96.$$

**Задача S-33.2.**

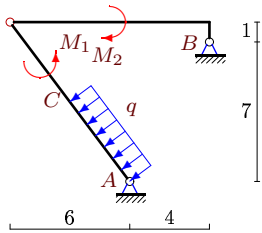
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$$AC = 5, q = 2, M_1 = 101, M_2 = 20.$$

**Задача S-33.3.**

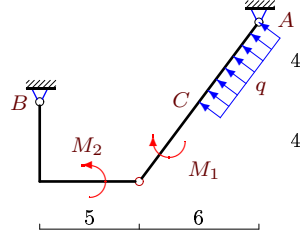
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$$AC = 5, q = 4, M_1 = 76, M_2 = 62.$$

**Задача S-33.4.**

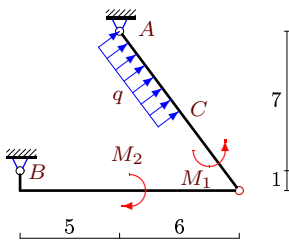
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$$AC = 5, q = 2, M_1 = 11, M_2 = 66.$$

**Задача S-33.5.**

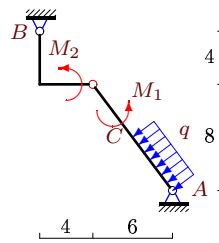
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$$AC = 5, q = 4, M_1 = 68, M_2 = 312.$$

**Задача S-33.6.**

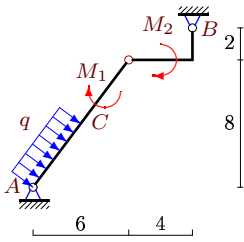
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$$AC = 5, q = 2, M_1 = 91, M_2 = 40.$$

Задача S-33.7.

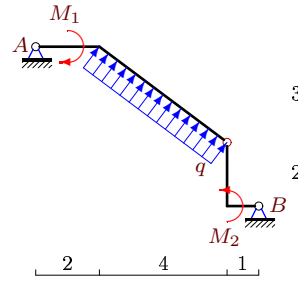
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$AC = 5, q = 2, M_1 = 95, M_2 = 60.$

Задача S-33.8.

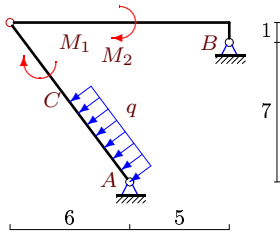
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$q = 6, M_1 = 3, M_2 = 47.$

Задача S-33.9.

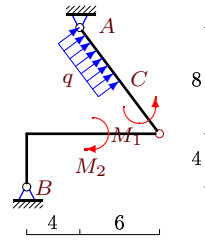
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$AC = 5, q = 2, M_1 = 7, M_2 = 238.$

Задача S-33.10.

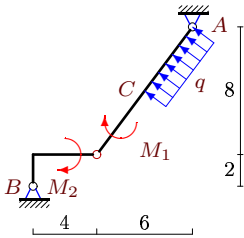
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$AC = 5, q = 2, M_1 = 179, M_2 = 236.$

Задача S-33.11.

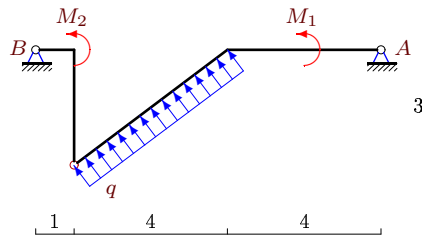
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$AC = 5, q = 2, M_1 = 55, M_2 = 50.$

Задача S-33.12.

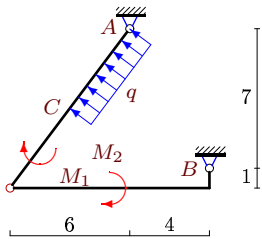
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$q = 2, M_1 = 1, M_2 = 20.$

Задача S-33.13.

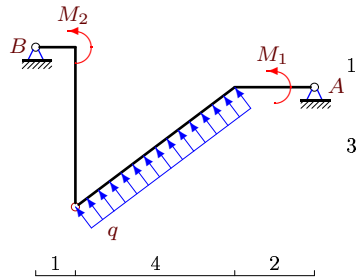
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$AC = 5, q = 2, M_1 = 149, M_2 = 6.$

Задача S-33.14.

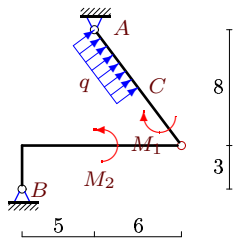
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$q = 6, M_1 = 3, M_2 = 61.$

Задача S-33.15.

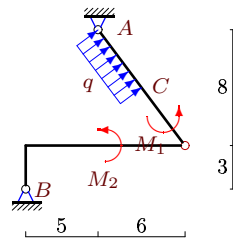
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$AC = 5, q = 2, M_1 = 137, M_2 = 64.$

Задача S-33.16.

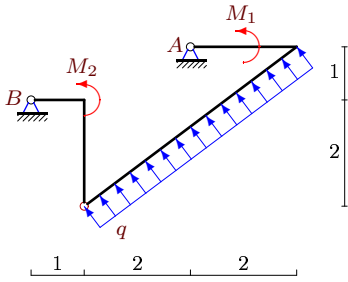
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$AC = 5, q = 2, M_1 = 287, M_2 = 64.$

Задача S-33.17.

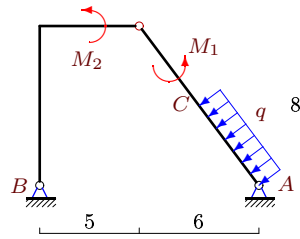
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$q = 2, M_1 = 1, M_2 = 17.$

Задача S-33.18.

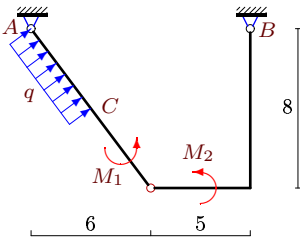
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$AC = 5, q = 2, M_1 = 163, M_2 = 142.$

Задача S-33.19.

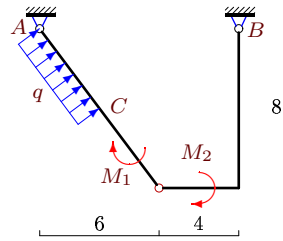
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$AC = 5, q = 4, M_1 = 238, M_2 = 108.$

Задача S-33.20.

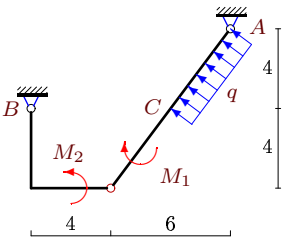
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$AC = 5, q = 2, M_1 = 5, M_2 = 80.$

Задача S-33.21.

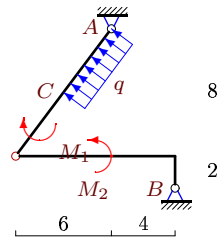
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$AC = 5, q = 2, M_1 = 131, M_2 = 36.$

Задача S-33.22.

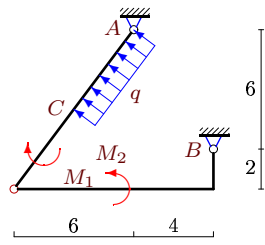
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$AC = 5, q = 2, M_1 = 167, M_2 = 90.$

Задача S-33.23.

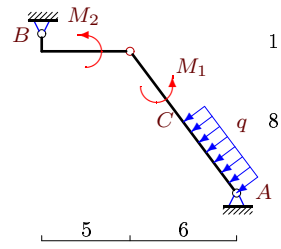
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$AC = 5, q = 2, M_1 = 211, M_2 = 144.$

Задача S-33.24.

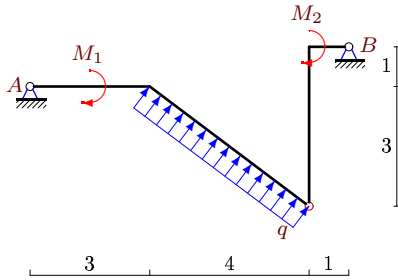
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$AC = 5, q = 4, M_1 = 116, M_2 = 8.$

Задача S-33.25.

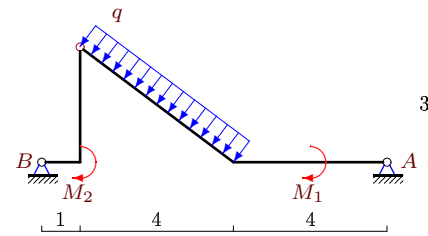
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$q = 2, M_1 = 3, M_2 = 20.$

Задача S-33.26.

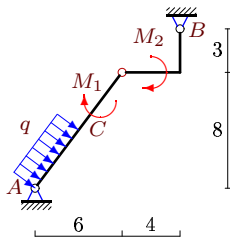
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$q = 2, M_1 = 4, M_2 = 17.$

Задача S-33.27.

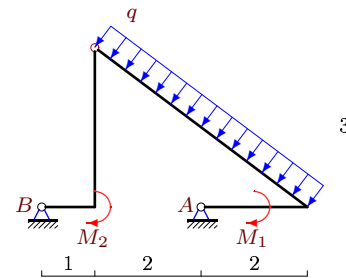
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$AC = 5, q = 2, M_1 = 61, M_2 = 41.$

Задача S-33.28.

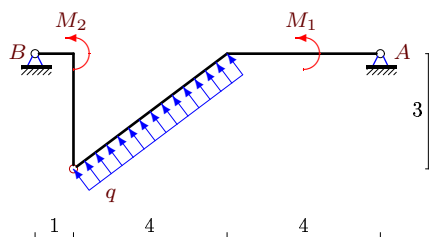
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$q = 4, M_1 = 3, M_2 = 51.$

Задача S-33.29.

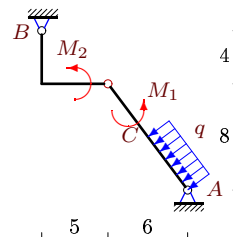
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$q = 2, M_1 = 1, M_2 = 20.$

Задача S-33.30.

10



$AC = 5, q = 2, M_1 = 91, M_2 = 46.$

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Ответы.

Простая составная рама с распределенной нагрузкой 12.02.2015

| №  | $X_A$ | $Y_A$ | $X_B$ | $Y_B$ |
|----|-------|-------|-------|-------|
| 1  | -16   | -14   | 8     | 20    |
| 2  | -16   | -17   | 24    | 11    |
| 3  | 4     | 7     | 12    | 5     |
| 4  | -1    | -12   | 9     | 6     |
| 5  | -23   | 17    | 7     | -29   |
| 6  | -20   | 24    | 28    | -18   |
| 7  | -2    | -6    | -6    | 12    |
| 8  | 0     | -13   | -18   | -11   |
| 9  | 23    | -17   | -15   | 23    |
| 10 | -2    | 20    | -6    | -26   |
| 11 | 7     | 6     | 1     | -12   |
| 12 | -2    | -4    | 8     | -4    |
| 13 | -16   | -9    | 24    | 3     |
| 14 | 0     | -13   | 18    | -11   |
| 15 | -16   | -14   | 8     | 8     |
| 16 | 28    | -2    | -36   | -4    |
| 17 | 0     | -13   | 6     | 5     |
| 18 | 7     | -24   | 1     | 30    |
| 19 | -7    | 24    | -9    | -36   |
| 20 | -1    | -12   | -7    | 6     |
| 21 | -7    | 0     | 15    | -6    |
| 22 | -7    | 6     | 15    | -12   |
| 23 | -14   | 4     | 22    | -10   |
| 24 | -7    | 15    | 23    | -3    |
| 25 | 0     | -4    | -6    | -4    |
| 26 | -1    | 4     | 7     | 4     |
| 27 | -1    | 1     | -7    | 5     |
| 28 | -1    | 28    | 13    | -12   |
| 29 | -2    | -4    | 8     | -4    |
| 30 | -11   | 12    | 19    | -6    |

S-33 файл о33s10A