

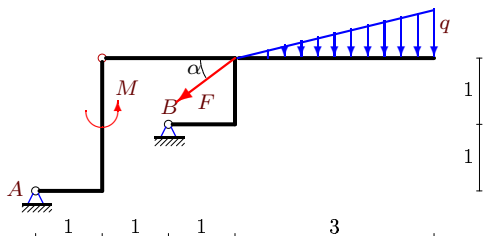
Составная рама с линейно распределенной нагрузкой

На раму, составленную из двух шарнирно соединенных частей, действует линейно распределенная нагрузка с максимальной интенсивностью q , сила F и момент M . 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 S-34.1.

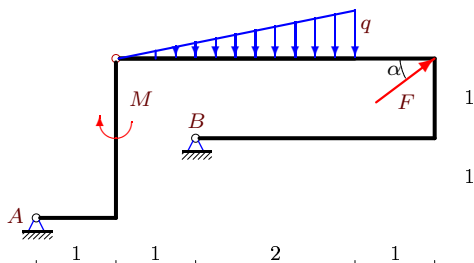
5



$q = 2$ кН/м, $F = 5$ кН,
 $M = 10$ кНм, $\cos \alpha = 0.8$.

Задача S-34.2.

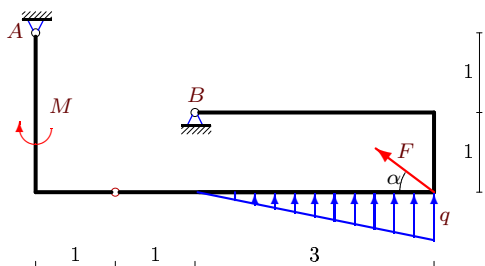
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$q = 2$ кН/м, $F = 15$ кН,
 $M = 12$ кНм, $\cos \alpha = 0.8$.

Задача S-34.3.

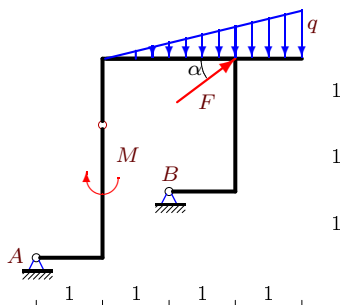
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$q = 4$ кН/м, $F = 15$ кН,
 $M = 33$ кНм, $\cos \alpha = 0.8$.

Задача S-34.4.

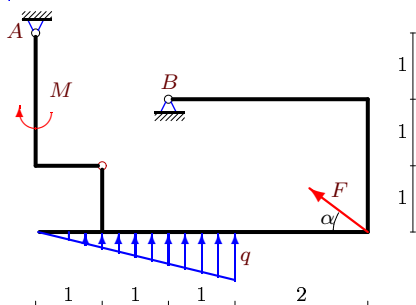
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$q = 4$ кН/м, $F = 20$ кН,
 $M = 29$ кНм, $\cos \alpha = 0.8$.

Задача S-34.5.

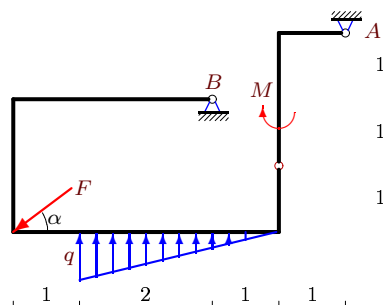
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$q = 6$ кН/м, $F = 10$ кН,
 $M = 28$ кНм, $\cos \alpha = 0.8$.

Задача S-34.6.

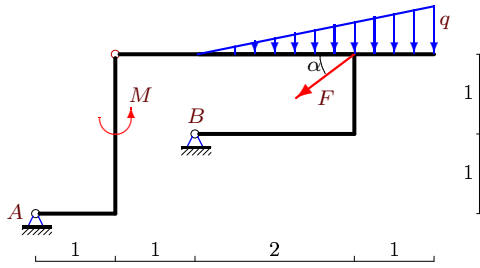
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$q = 2$ кН/м, $F = 15$ кН,
 $M = 24$ кНм, $\cos \alpha = 0.8$.

Задача S-34.7.

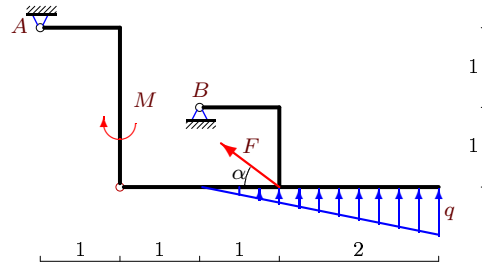
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$q = 4 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 10 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.8.

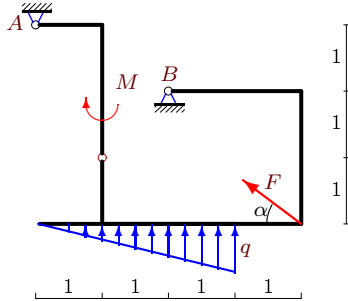
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$q = 4 \text{ кН/м}$, $F = 20 \text{ кН}$,
 $M = 37 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.9.

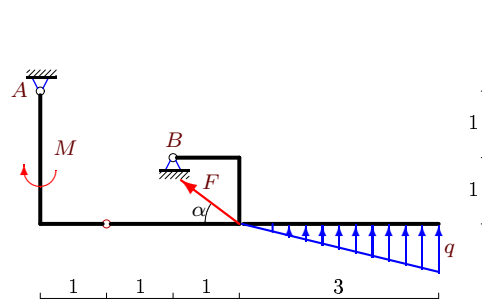
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$q = 2 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 17 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.10.

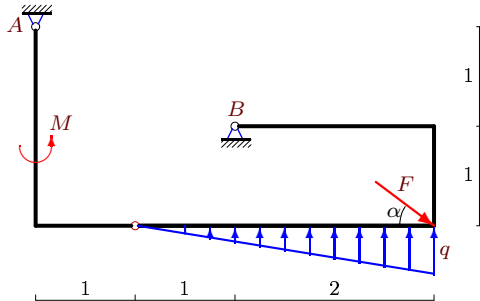
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 27 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.11.

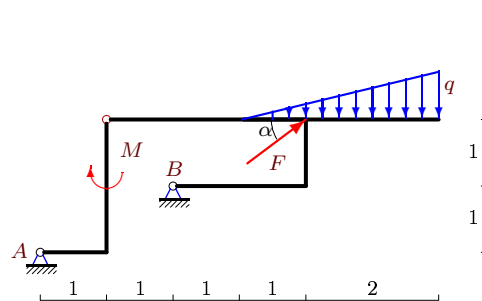
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$q = 2 \text{ кН/м}$, $F = 10 \text{ кН}$,
 $M = 8 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.12.

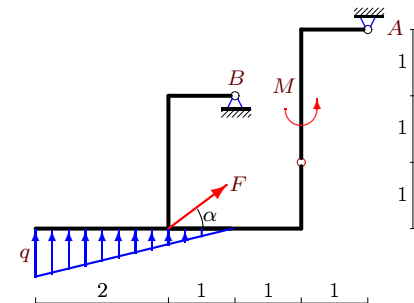
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 15 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.13.

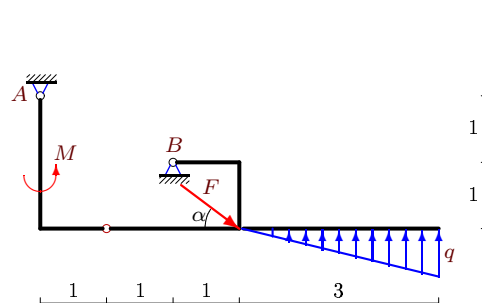
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$q = 4 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 20 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.14.

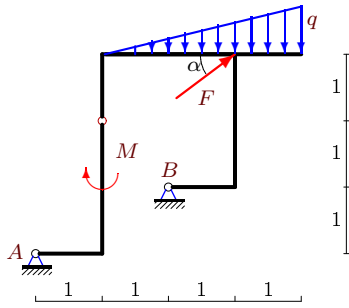
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 15 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.15.

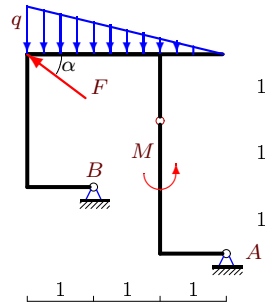
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$q = 4 \text{ кН/м}$, $F = 10 \text{ кН}$,
 $M = 19 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.16.

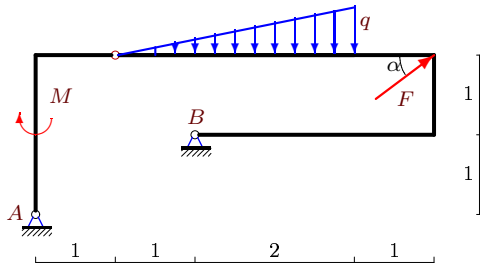
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$q = 6 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 18 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.17.

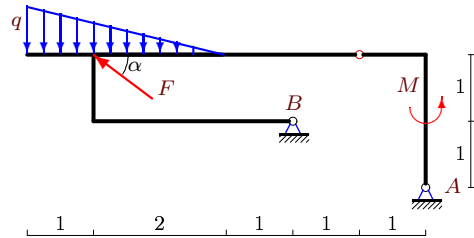
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 9 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.18.

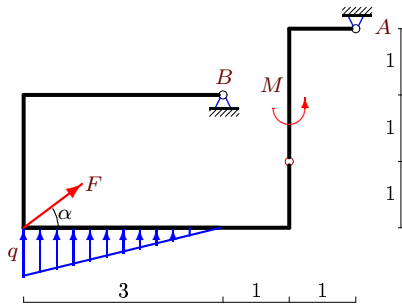
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 12 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.19.

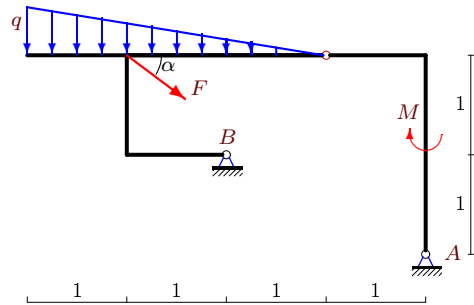
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$q = 4 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 23 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.20.

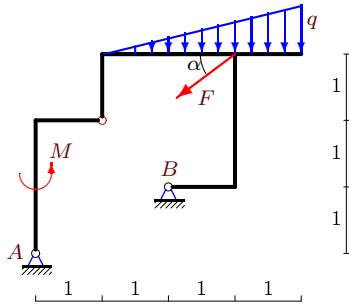
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 30 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.21.

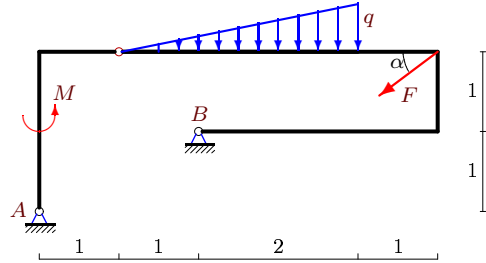
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$q = 2 \text{ кН/м}$, $F = 10 \text{ кН}$,
 $M = 28 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.22.

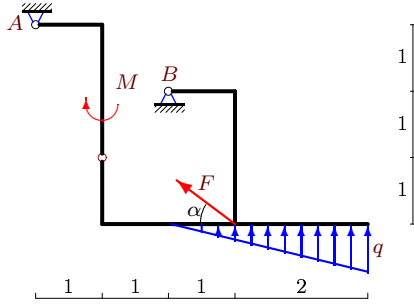
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$q = 4 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 19 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.23.

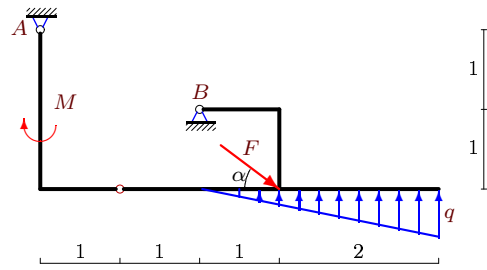
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$q = 2 \text{ кН/м}$, $F = 20 \text{ кН}$,
 $M = 56 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.24.

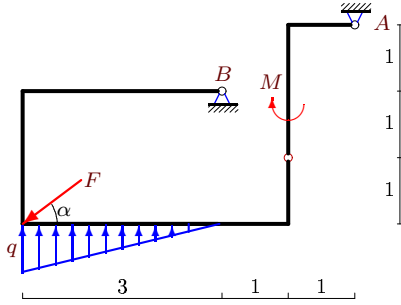
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$q = 4 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 2 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.25.

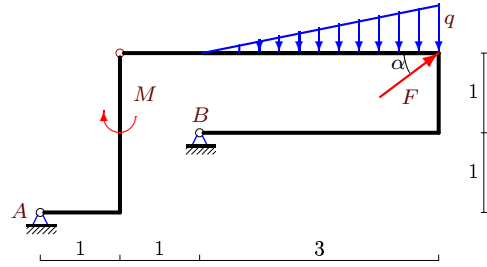
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$q = 2 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 8 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.26.

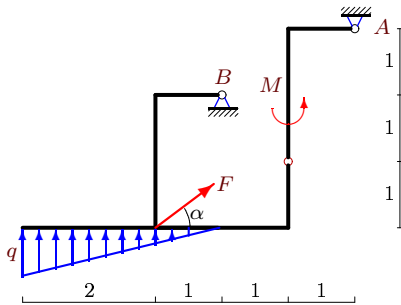
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 12 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.27.

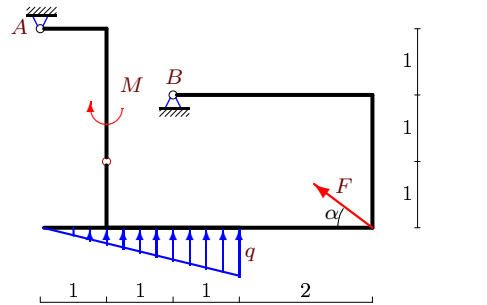
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$q = 2 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 14 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.28.

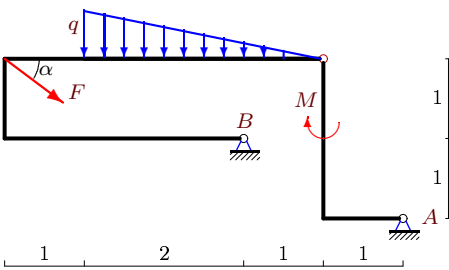
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$q = 2 \text{ кН/м}$, $F = 10 \text{ кН}$,
 $M = 25 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.29.

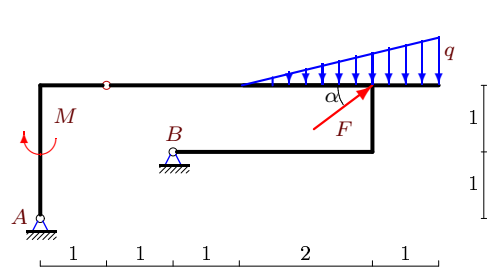
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$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 27 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S-34.30.

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$q = 2 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 4 \text{ кНм}$, $\cos \alpha = 0.8$.

Составная рама с линейно распределенной нагрузкой12.02.2015

№	X_A	Y_A	X_B	Y_B
1	-6	-2	10	8
2	8	4	-20	-10
3	-20	7	32	-22
4	1	-27	-17	21
5	-10	-8	18	-7
6	-8	8	20	-2
7	-8	-6	12	15
8	-15	-7	31	-11
9	-5	-7	9	1
10	-14	1	26	-16
11	3	2	-11	1
12	1	-13	-13	10
13	9	-2	-13	-7
14	-2	19	-10	-16
15	1	-17	-9	17
16	-1	-16	13	16
17	6	3	-18	-6
18	-3	-6	15	3
19	12	1	-16	-10
20	11	8	-23	7
21	-7	14	15	-5
22	-10	-1	14	10
23	-14	-28	30	13
24	-5	8	1	-11
25	-1	6	5	-6
26	5	-2	-17	-1
27	5	-4	-9	-2
28	-9	-7	17	-2
29	16	-5	-28	20
30	0	-4	-4	4

S-34 файл о34s5A