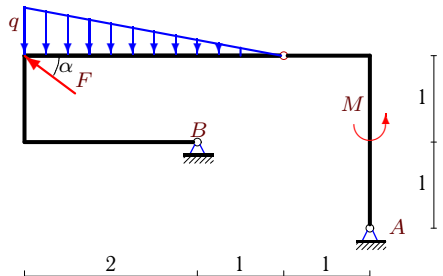


Составная рама с линейно распределенной нагрузкой

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.

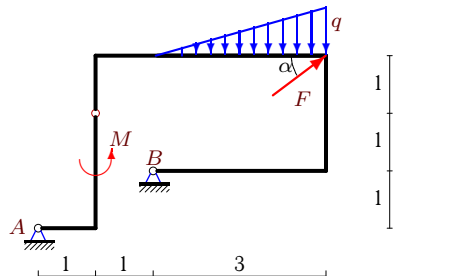
Кирсанов М.Н. Задачи по теоретической механике с решениями в **Maple 11**. – М.: ФИЗМАТЛИТ, 2010. – 264 с. (с.15)

Задача S34.1.



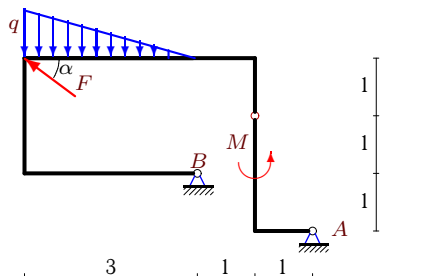
$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 9 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.2.



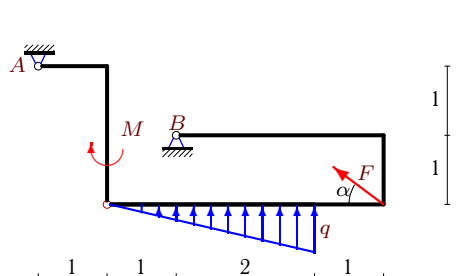
$q = 4 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 1 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.3.



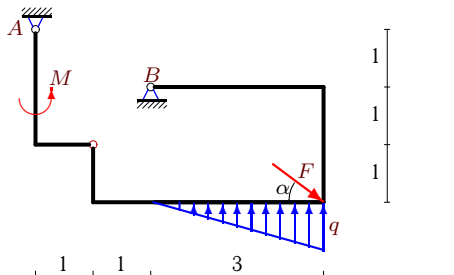
$q = 2 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 21 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.4.



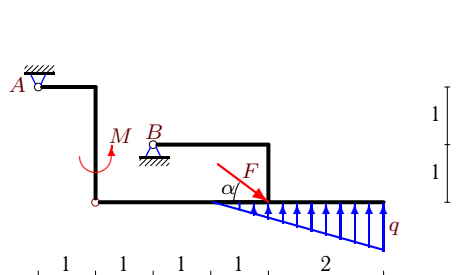
$q = 2 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 13 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.5.



$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 21 \text{ кНм}$, $\cos \alpha = 0.8$.

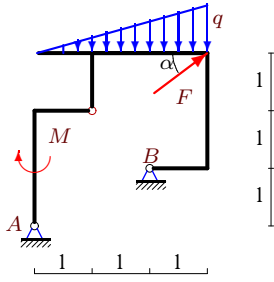
Задача S34.6.



$q = 2 \text{ кН/м}$, $F = 5 \text{ кН}$,
 $M = 1 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.7.

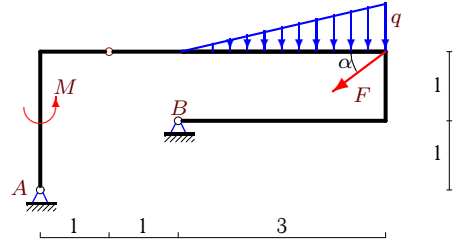
4



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

Задача S34.8.

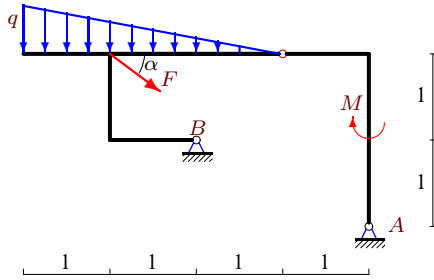
4



$q = 2 \text{ кН/м}, F = 10 \text{ кН},$
 $M = 23 \text{ кНм}, \cos \alpha = 0.8.$

Задача S34.9.

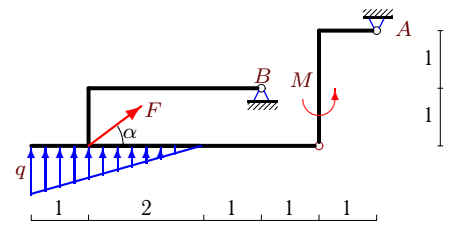
4



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

Задача S34.10.

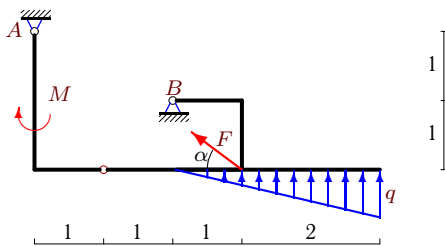
4



$q = 4 \text{ кН/м}, F = 10 \text{ кН},$
 $M = 17 \text{ кНм}, \cos \alpha = 0.8.$

Задача S34.11.

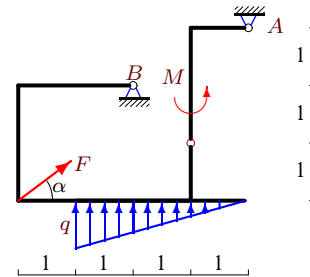
4



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

Задача S34.12.

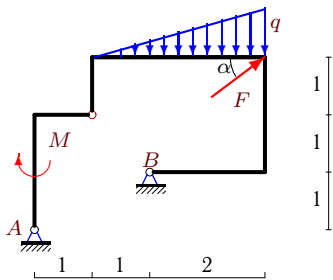
4



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

Задача S34.13.

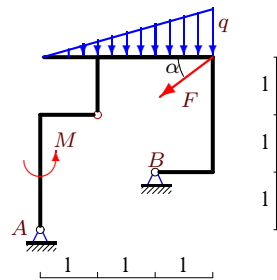
4



$q = 2 \text{ кН/м}, F = 20 \text{ кН},$
 $M = 41 \text{ кНм}, \cos \alpha = 0.8.$

Задача S34.14.

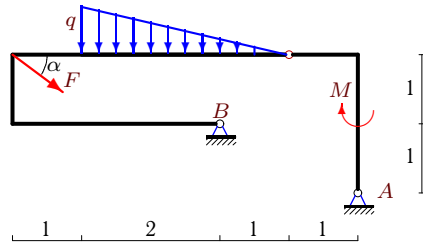
4



$q = 2 \text{ кН/м}, F = 15 \text{ кН},$
 $M = 45 \text{ кНм}, \cos \alpha = 0.8.$

Задача S34.15.

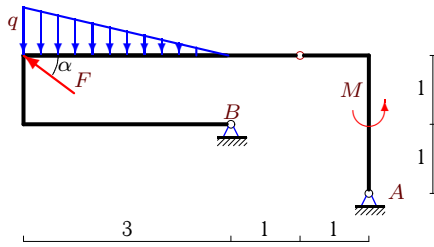
4



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

Задача S34.17.

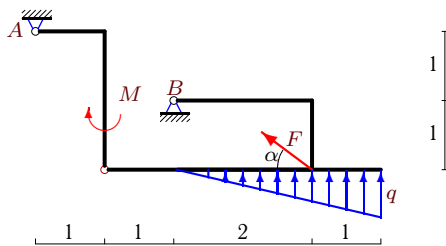
4



$q = 4 \text{ кН/м}$, $F = 20 \text{ кН}$,
 $M = 19 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.19.

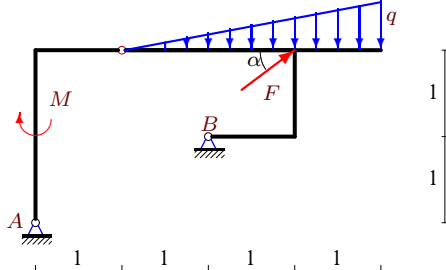
4



$q = 2 \text{ кН/м}$, $F = 20 \text{ кН}$,
 $M = 37 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.21.

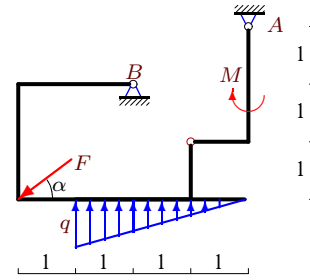
4



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

Задача S34.16.

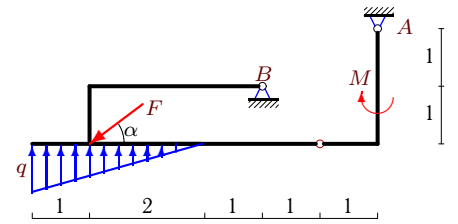
4



$q = 2 \text{ кН/м}$, $F = 20 \text{ кН}$,
 $M = 41 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.18.

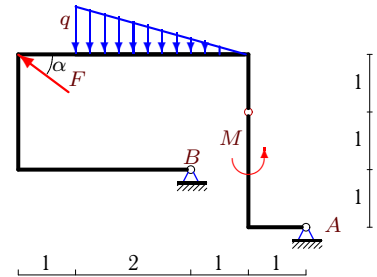
4



$q = 4 \text{ кН/м}$, $F = 15 \text{ кН}$,
 $M = 18 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.20.

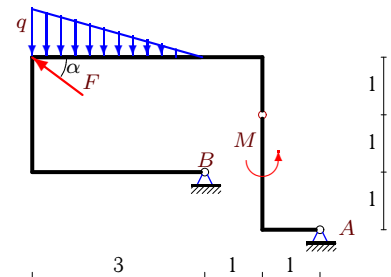
4



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

Задача S34.22.

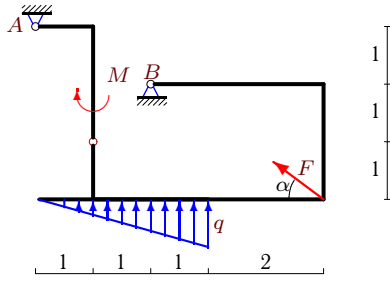
4



$q = 4 \text{ кН/м}$, $F = 10 \text{ кН}$,
 $M = 7 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.23.

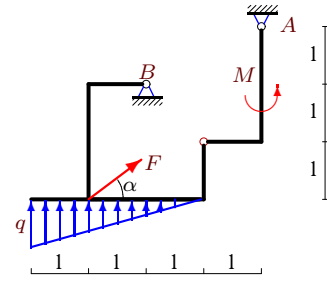
4



$q = 4 \text{ кН/м}$, $F = 20 \text{ кН}$,
 $M = 53 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.24.

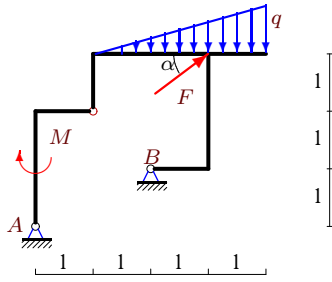
4



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

Задача S34.25.

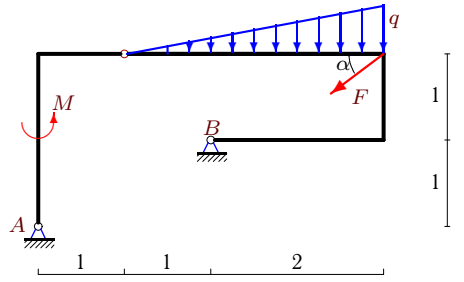
4



$q = 2 \text{ кН/м}$, $F = 20 \text{ кН}$,
 $M = 41 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.26.

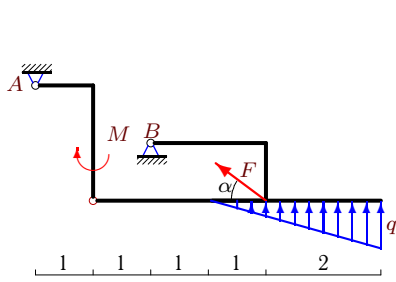
4



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

Задача S34.27.

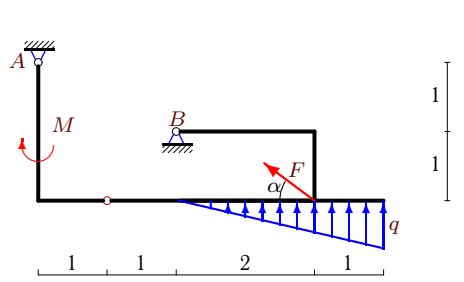
4



$q = 2 \text{ кН/м}$, $F = 10 \text{ кН}$,
 $M = 23 \text{ кНм}$, $\cos \alpha = 0.8$.

Задача S34.28.

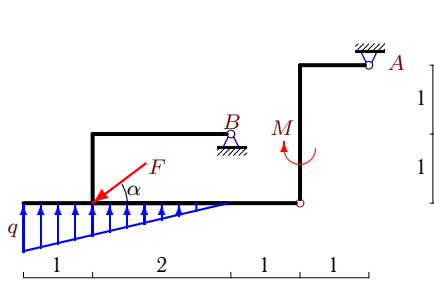
4



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

Задача S34.29.

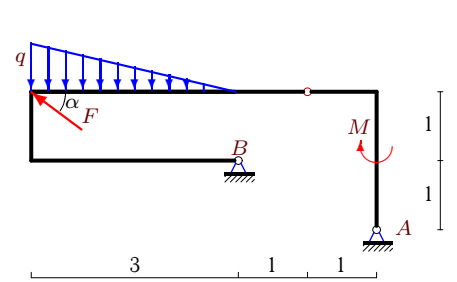
4



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

Задача S34.30.

4



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

S34 Ответы.**Составная рама с линейно распределенной нагрузкой** 28.08.2011

№	X_A	Y_A	X_B	Y_B
1	-3	-3	15	0
2	-4	-7	0	10
3	-6	-9	18	3
4	-7	1	11	-7
5	4	13	-16	-10
6	-2	5	-2	-5
7	5	-20	-17	17
8	-13	-3	21	12
9	10	7	-22	8
10	15	13	-23	-25
11	-5	0	9	-6
12	8	-12	-16	3
13	10	-21	-26	12
14	-10	25	22	-13
15	16	-5	-28	20
16	-11	19	27	-10
17	-9	-1	25	-5
18	-5	8	17	-5
19	-17	-3	33	-12
20	-5	-9	13	9
21	-2	-10	-10	10
22	1	-9	7	9
23	-19	-15	35	-3
24	4	-6	-8	0
25	6	-29	-22	20
26	-9	1	13	8
27	-12	1	20	-10
28	-8	6	12	-15
29	0	4	4	-4
30	4	-3	0	6

S34 файл о34s4A