

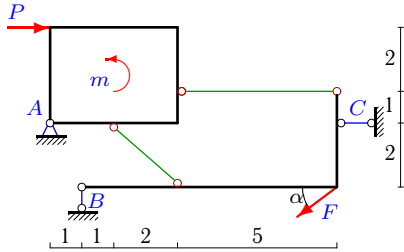
Конструкция из пластины и уголка

Конструкция состоит из прямоугольной пластины и жесткого уголка, изогнутого под прямым углом. Тела соединены двумя невесомыми стержнями. Определить реакции опор конструкции (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 S31.1.

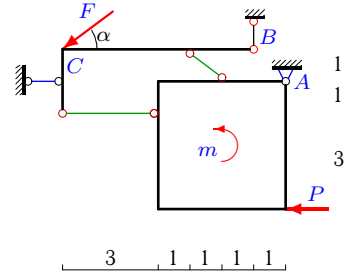
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$F = 10 \text{ кН}, P = 1 \text{ кН}, m = 3 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.2.

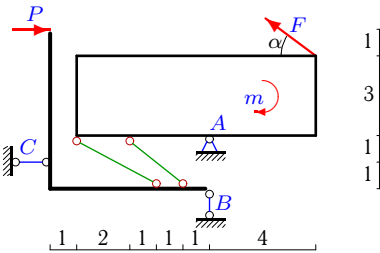
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$F = 5 \text{ кН}, P = 2 \text{ кН}, m = 8 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.3.

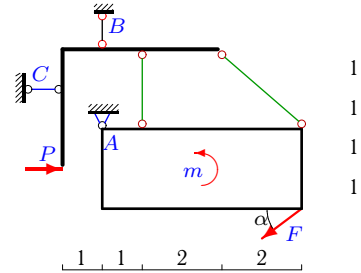
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$F = 5 \text{ кН}, P = 4 \text{ кН}, m = 22 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.4.

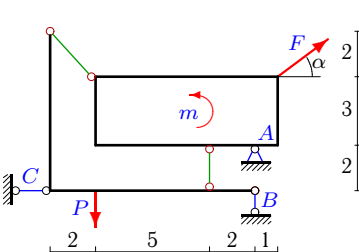
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$F = 20 \text{ кН}, P = 2 \text{ кН}, m = 91 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.5.

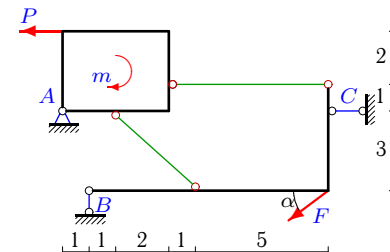
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$F = 5 \text{ кН}, P = 10 \text{ кН}, m = 9 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.6.

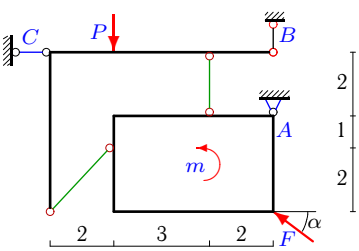
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$F = 20 \text{ кН}, P = 1 \text{ кН}, m = 3 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.7.

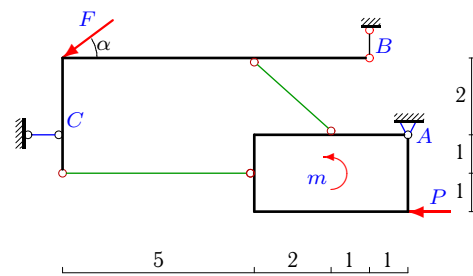
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$F = 20 \text{ кН}, P = 6 \text{ кН}, m = 48 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.8.

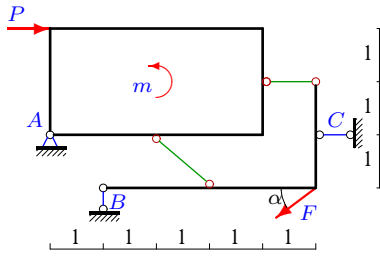
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$F = 5 \text{ кН}, P = 1 \text{ кН}, m = 2 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.9.

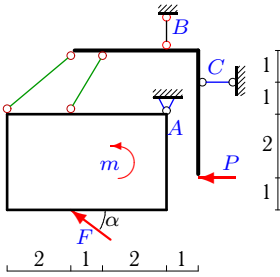
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$F = 10 \text{ кН}$, $P = 3 \text{ кН}$, $m = 6 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.11.

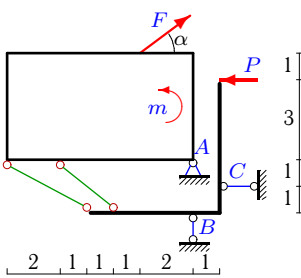
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$F = 5 \text{ кН}$, $P = 1 \text{ кН}$, $m = 23 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.13.

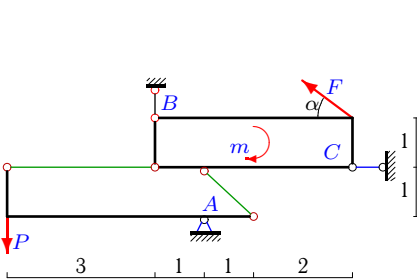
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$F = 25 \text{ кН}$, $P = 1 \text{ кН}$, $m = 107 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.15.

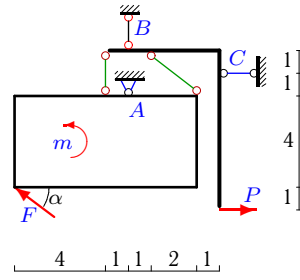
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$F = 25 \text{ кН}$, $P = 3 \text{ кН}$, $m = 45 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.10.

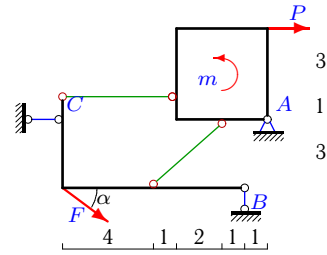
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$F = 5 \text{ кН}$, $P = 4 \text{ кН}$, $m = 34 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.12.

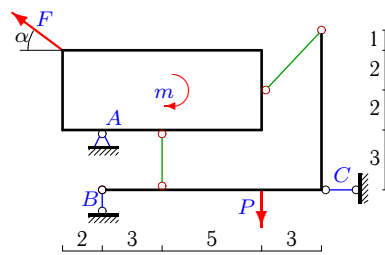
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$F = 10 \text{ кН}$, $P = 1 \text{ кН}$, $m = 4 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.14.

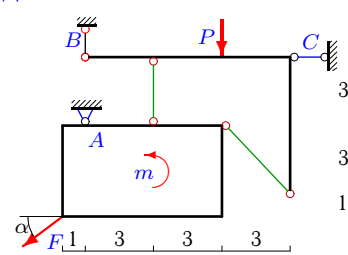
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$F = 5 \text{ кН}$, $P = 3 \text{ кН}$, $m = 10 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.16.

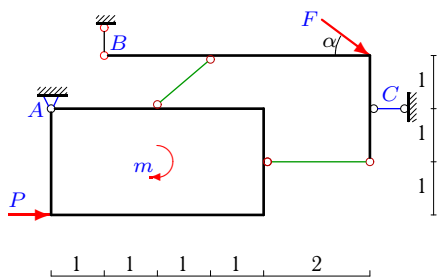
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$F = 5 \text{ кН}$, $P = 12 \text{ кН}$, $m = 13 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.17.

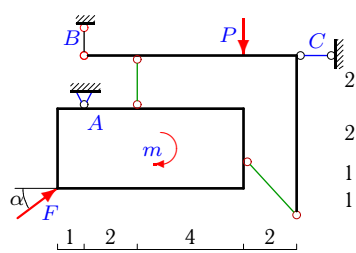
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$F = 5 \text{ кН}, P = 2 \text{ кН}, m = 4 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.18.

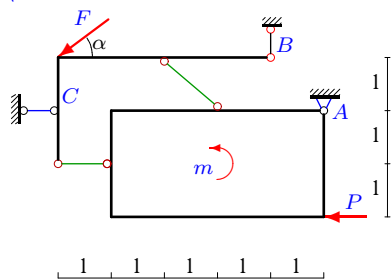
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$F = 5 \text{ кН}, P = 2 \text{ кН}, m = 9 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.19.

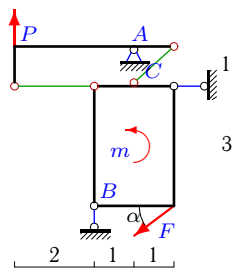
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$F = 5 \text{ кН}, P = 1 \text{ кН}, m = 2 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.20.

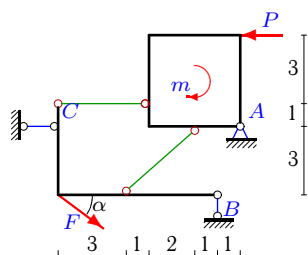
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$F = 20 \text{ кН}, P = 5 \text{ кН}, m = 12 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.21.

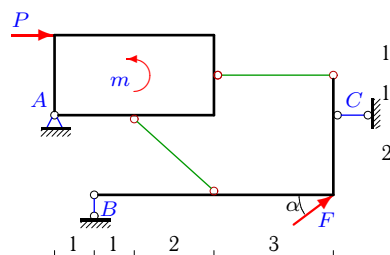
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$F = 5 \text{ кН}, P = 5 \text{ кН}, m = 20 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.22.

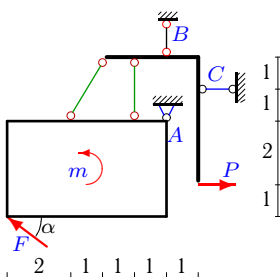
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$F = 5 \text{ кН}, P = 2 \text{ кН}, m = 4 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.23.

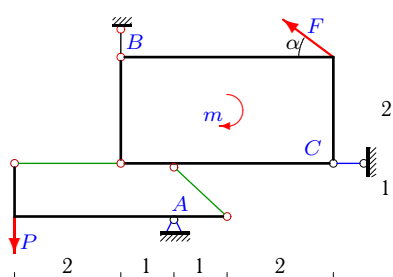
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$F = 5 \text{ кН}, P = 2 \text{ кН}, m = 28 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.24.

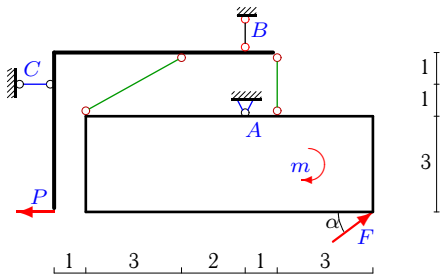
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$F = 5 \text{ кН}, P = 3 \text{ кН}, m = 9 \text{ кНм},$
 $\cos \alpha = 0.8.$

Задача S31.25.

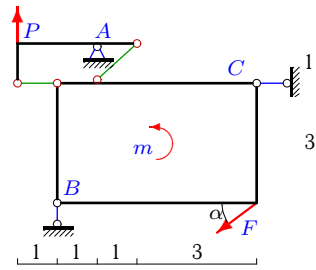
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$F = 5 \text{ кН}$, $P = 3 \text{ кН}$, $m = 26 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.26.

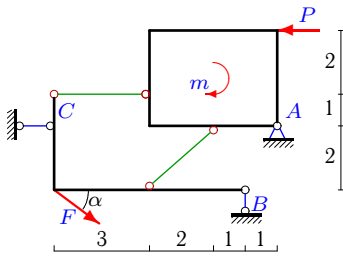
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$F = 20 \text{ кН}$, $P = 1 \text{ кН}$, $m = 48 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.27.

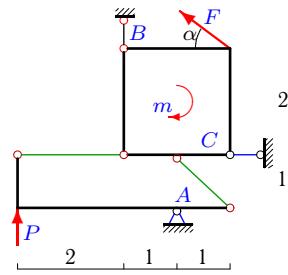
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$F = 5 \text{ кН}$, $P = 1 \text{ кН}$, $m = 3 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.28.

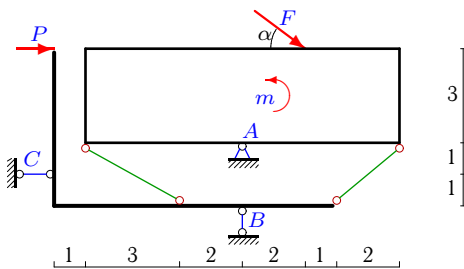
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$F = 5 \text{ кН}$, $P = 1 \text{ кН}$, $m = 3 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.29.

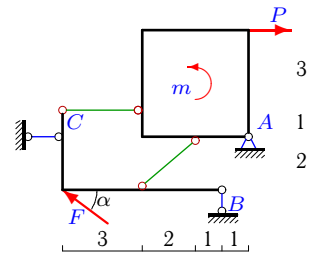
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$F = 5 \text{ кН}$, $P = 4 \text{ кН}$, $m = 20 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.30.

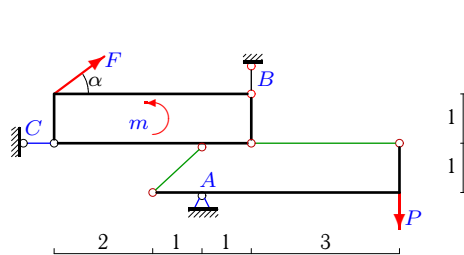
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$F = 5 \text{ кН}$, $P = 1 \text{ кН}$, $m = 4 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.31.

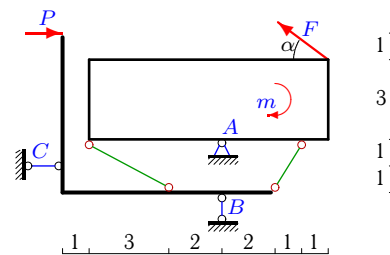
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$F = 15 \text{ кН}$, $P = 4 \text{ кН}$, $m = 27 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Задача S31.32.

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$F = 10 \text{ кН}$, $P = 1 \text{ кН}$, $m = 47 \text{ кНм}$,
 $\cos \alpha = 0.8$.

Конструкция из пластины и уголка**02.03.2011**

	X_A	Y_A	R_B	R_C	
1	-65	-64	-70	72	
2	-20	-22	25	-26	
3	-14	71	74	-14	
4	13	-1	13	-1	
5	31	32	25	35	
6	-155	-156	-168	172	
7	1	3	-9	-15	
8	-31	-32	35	-36	
9	-35	-32	-38	40	
10	-23	102	-105	23	
11	5	-9	6	0	
12	71	-72	-78	80	
13	-19	-8	7	0	
14	-4	5	5	8	
15	-12	-32	20	32	
16	28	27	-12	-24	
17	17	-19	22	-23	
18	2	3	-4	-6	
19	-15	-16	19	-20	
20	-15	55	48	31	
21	38	-33	-36	37	
22	24	26	29	-30	
23	-3	24	-27	5	
24	-9	-8	8	13	
25	10	51	-54	11	
26	-2	59	48	18	
27	27	-26	-29	30	
28	3	-12	8	1	
29	-18	61	58	-10	
30	-27	26	29	-30	
31	16	-17	12	28	
32	4	11	17	-3	

S31 серия 10