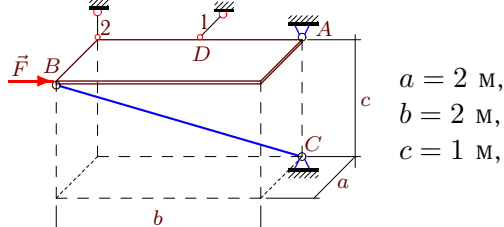


Равновесие полки

Горизонтальная однородная прямоугольная полка весом G имеет в точке A сферическую опору и поддерживается двумя невесомыми, шарнирно закрепленными по концам стержнями (горизонтальным 1 и вертикальным 2) и подпоркой BC . К полке приложена сила F , направленная вдоль одного из ее ребер. Определить реакции опор (в кН).

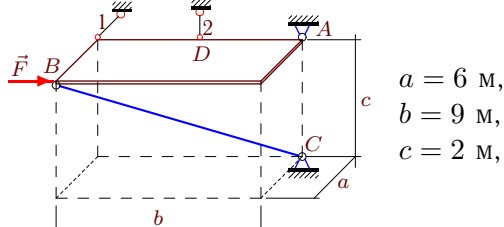
Кирсанов М.Н. **Решebник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.:ФИЗМАТЛИТ, 2008.– 384 с. (с.106.)

Задача 14.1.



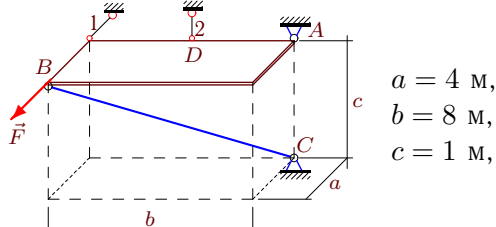
$AD = 1 \text{ м}, G = 2 \text{ кН}, F = 1 \text{ кН}.$

Задача 14.2.



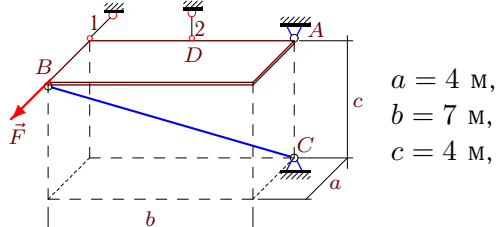
$AD = 4 \text{ м}, G = 4 \text{ кН}, F = 9 \text{ кН}.$

Задача 14.3.



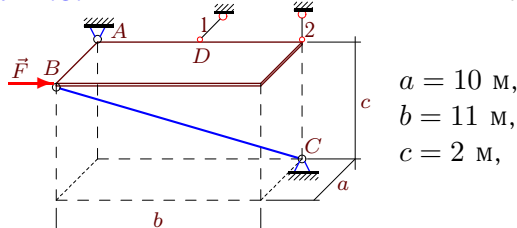
$AD = 4 \text{ м}, G = 2 \text{ кН}, F = 4 \text{ кН}.$

Задача 14.4.



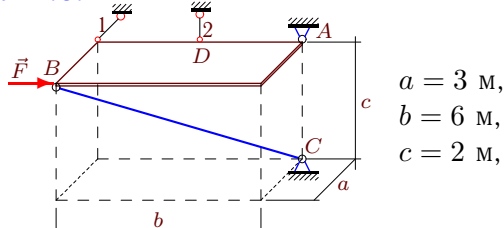
$AD = 3 \text{ м}, G = 8 \text{ кН}, F = 7 \text{ кН}.$

Задача 14.5.



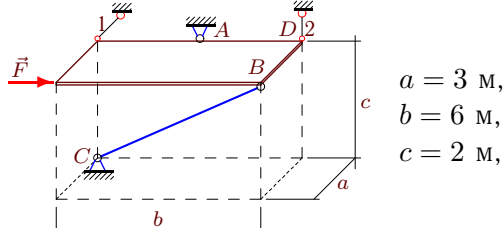
$AD = 5 \text{ м}, G = 4 \text{ кН}, F = 1 \text{ кН}.$

Задача 14.6.



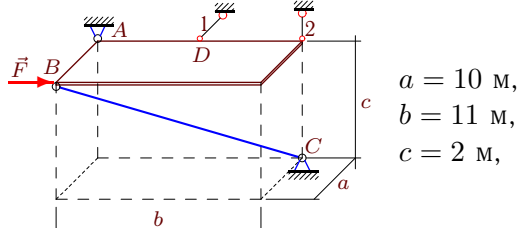
$AD = 3 \text{ м}, G = 4 \text{ кН}, F = 2 \text{ кН}.$

Задача 14.7.



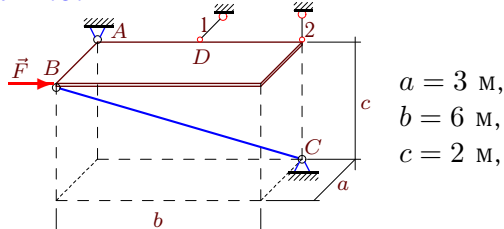
$AD = 3 \text{ м}, G = 8 \text{ кН}, F = 1 \text{ кН}.$

Задача 14.8.



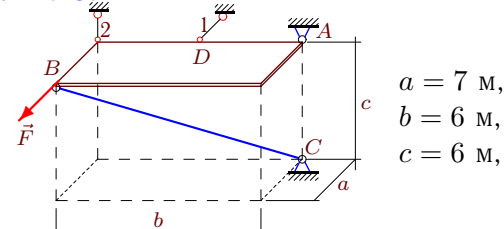
$AD = 5 \text{ м}, G = 8 \text{ кН}, F = 1 \text{ кН}.$

Задача 14.9.



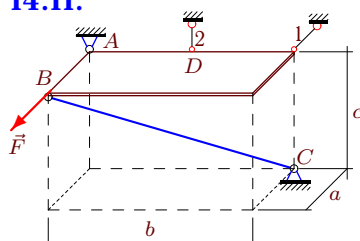
$AD = 3 \text{ м}, G = 4 \text{ кН}, F = 1 \text{ кН}.$

Задача 14.10.



$AD = 3 \text{ м}, G = 12 \text{ кН}, F = 3 \text{ кН}.$

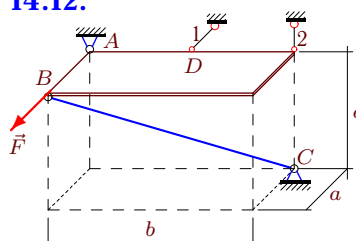
Задача 14.11.



$$a = 3 \text{ м}, \\ b = 6 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 3 \text{ м}, G = 4 \text{ кН}, F = 4 \text{ кН}.$$

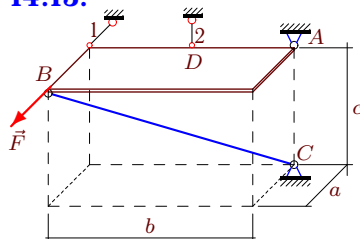
Задача 14.12.



$$a = 4 \text{ м}, \\ b = 8 \text{ м}, \\ c = 1 \text{ м},$$

$$AD = 4 \text{ м}, G = 8 \text{ кН}, F = 1 \text{ кН}.$$

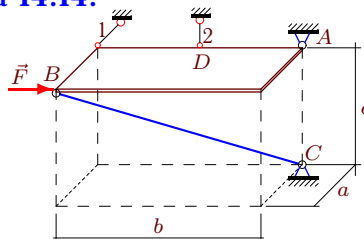
Задача 14.13.



$$a = 5 \text{ м}, \\ b = 14 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 7 \text{ м}, G = 4 \text{ кН}, F = 7 \text{ кН}.$$

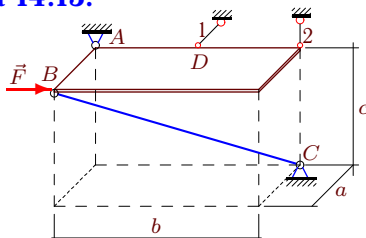
Задача 14.14.



$$a = 4 \text{ м}, \\ b = 8 \text{ м}, \\ c = 1 \text{ м},$$

$$AD = 4 \text{ м}, G = 2 \text{ кН}, F = 2 \text{ кН}.$$

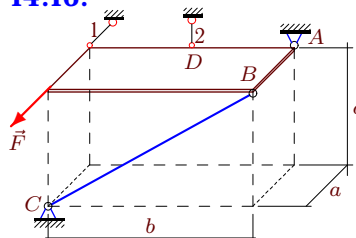
Задача 14.15.



$$a = 5 \text{ м}, \\ b = 14 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 7 \text{ м}, G = 28 \text{ кН}, F = 14 \text{ кН}.$$

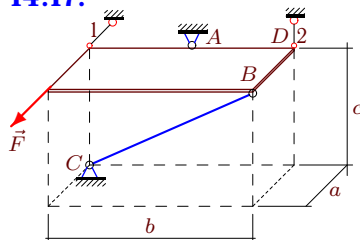
Задача 14.16.



$$a = 12 \text{ м}, \\ b = 6 \text{ м}, \\ c = 8 \text{ м},$$

$$AD = 3 \text{ м}, G = 16 \text{ кН}, F = 1 \text{ кН}.$$

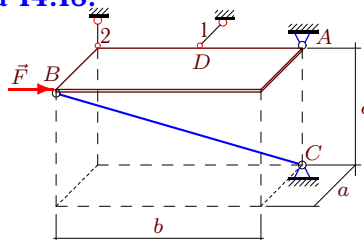
Задача 14.17.



$$a = 5 \text{ м}, \\ b = 14 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 7 \text{ м}, G = 8 \text{ кН}, F = 1 \text{ кН}.$$

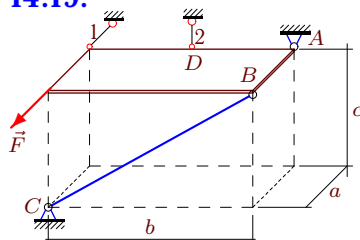
Задача 14.18.



$$a = 6 \text{ м}, \\ b = 9 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 4 \text{ м}, G = 4 \text{ кН}, F = 8 \text{ кН}.$$

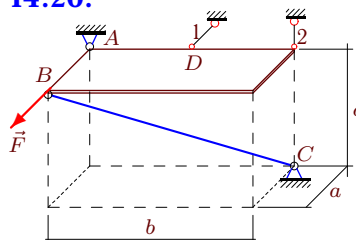
Задача 14.19.



$$a = 28 \text{ м}, \\ b = 24 \text{ м}, \\ c = 7 \text{ м},$$

$$AD = 12 \text{ м}, G = 14 \text{ кН}, F = 2 \text{ кН}.$$

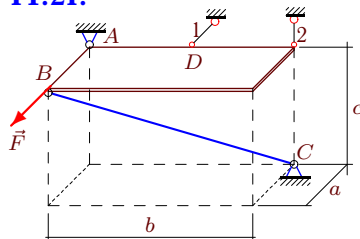
Задача 14.20.



$$a = 6 \text{ м}, \\ b = 9 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 4 \text{ м}, G = 8 \text{ кН}, F = 2 \text{ кН}.$$

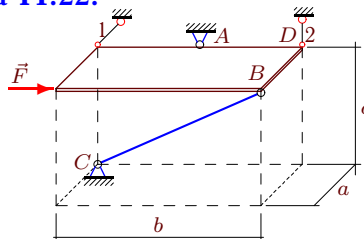
Задача 14.21.



$$a = 6 \text{ м}, \\ b = 7 \text{ м}, \\ c = 6 \text{ м},$$

$$AD = 3 \text{ м}, G = 36 \text{ кН}, F = 1 \text{ кН}.$$

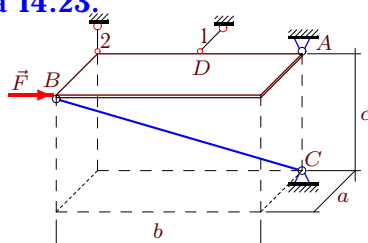
Задача 14.22.



$$a = 4 \text{ м}, \\ b = 8 \text{ м}, \\ c = 1 \text{ м},$$

$$AD = 4 \text{ м}, G = 2 \text{ кН}, F = 1 \text{ кН}.$$

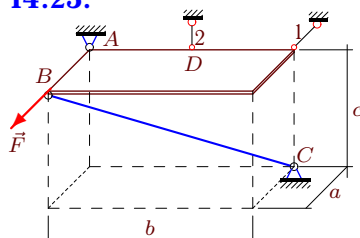
Задача 14.23.



$$a = 4 \text{ м}, \\ b = 8 \text{ м}, \\ c = 1 \text{ м},$$

$$AD = 4 \text{ м}, G = 6 \text{ кН}, F = 4 \text{ кН}.$$

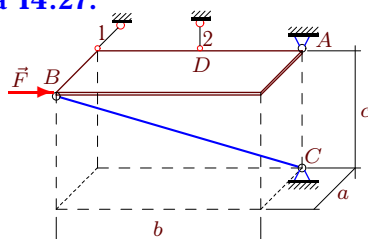
Задача 14.25.



$$a = 5 \text{ м}, \\ b = 14 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 7 \text{ м}, G = 12 \text{ кН}, F = 4 \text{ кН}.$$

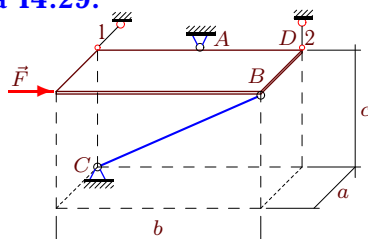
Задача 14.27.



$$a = 10 \text{ м}, \\ b = 11 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 5 \text{ м}, G = 4 \text{ кН}, F = 11 \text{ кН}.$$

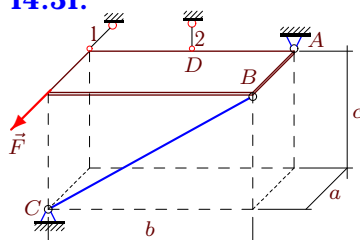
Задача 14.29.



$$a = 6 \text{ м}, \\ b = 9 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 4 \text{ м}, G = 48 \text{ кН}, F = 5 \text{ кН}.$$

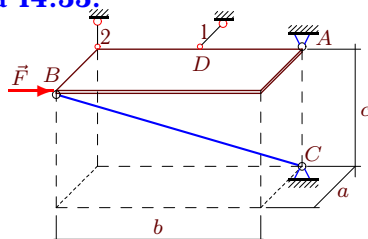
Задача 14.31.



$$a = 3 \text{ м}, \\ b = 4 \text{ м}, \\ c = 3 \text{ м},$$

$$AD = 2 \text{ м}, G = 18 \text{ кН}, F = 4 \text{ кН}.$$

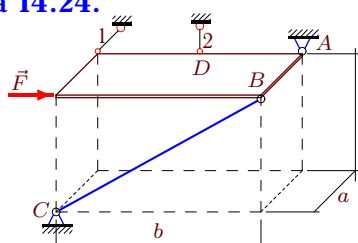
Задача 14.33.



$$a = 4 \text{ м}, \\ b = 8 \text{ м}, \\ c = 1 \text{ м},$$

$$AD = 4 \text{ м}, G = 2 \text{ кН}, F = 2 \text{ кН}.$$

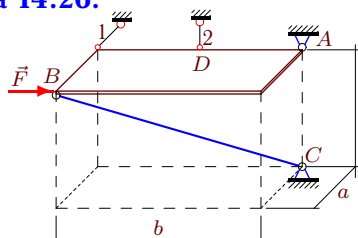
Задача 14.24.



$$a = 4 \text{ м}, \\ b = 3 \text{ м}, \\ c = 4 \text{ м},$$

$$AD = 1 \text{ м}, G = 24 \text{ кН}, F = 6 \text{ кН}.$$

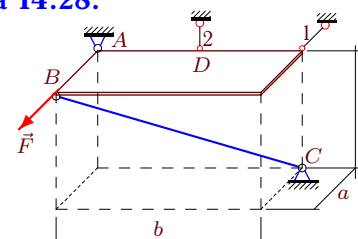
Задача 14.26.



$$a = 7 \text{ м}, \\ b = 6 \text{ м}, \\ c = 6 \text{ м},$$

$$AD = 3 \text{ м}, G = 12 \text{ кН}, F = 6 \text{ кН}.$$

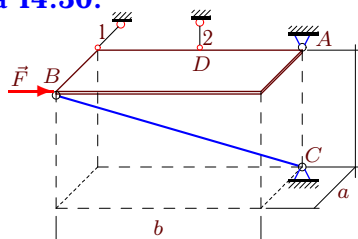
Задача 14.28.



$$a = 6 \text{ м}, \\ b = 7 \text{ м}, \\ c = 6 \text{ м},$$

$$AD = 3 \text{ м}, G = 36 \text{ кН}, F = 7 \text{ кН}.$$

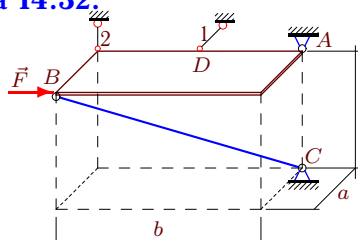
Задача 14.30.



$$a = 6 \text{ м}, \\ b = 7 \text{ м}, \\ c = 6 \text{ м},$$

$$AD = 3 \text{ м}, G = 24 \text{ кН}, F = 7 \text{ кН}.$$

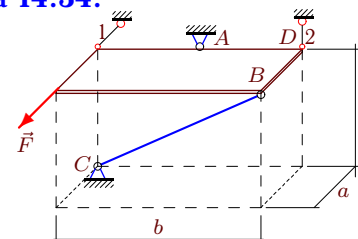
Задача 14.32.



$$a = 2 \text{ м}, \\ b = 2 \text{ м}, \\ c = 1 \text{ м},$$

$$AD = 1 \text{ м}, G = 4 \text{ кН}, F = 1 \text{ кН}.$$

Задача 14.34.



$$a = 3 \text{ м}, \\ b = 6 \text{ м}, \\ c = 2 \text{ м},$$

$$AD = 3 \text{ м}, G = 4 \text{ кН}, F = 1 \text{ кН}.$$

Равновесие полки

	H	V	X_A	Y_A	Z_A	S
1	2	0	-4	1	1	-3
2	6	0	-12	0	2	-11
3	-4	0	-4	8	1	-9
4	-7	0	-4	7	4	-9
5	-20	2	10	10	0	-15
6	1	0	-4	4	2	-7
7	-7	-4	1	-13	8	-14
8	-42	4	22	21	0	-30
9	-5	2	2	5	0	-7
10	-6	0	-4	6	6	-11
11	-3	4	-4	6	-2	-7
12	-32	4	15	32	0	-36
13	-7	0	-5	14	2	-15
14	1	0	-5	6	1	-9
15	-60	14	25	84	0	-105
16	-13	16	12	-6	-8	-10
17	-11	-4	0	-28	8	-30
18	12	0	-18	1	2	-11
19	-30	14	28	-24	-7	-25
20	-27	4	13	18	0	-22
21	-42	18	23	21	0	-33
22	-5	-1	1	-9	2	-9
23	4	0	-16	20	3	-27
24	-20	36	20	-15	-24	-15
25	-15	12	-4	42	-6	-45
26	7	0	-14	0	6	-11
27	10	0	-20	0	2	-15
28	-18	42	-7	21	-24	-33
29	-78	-30	6	-113	54	-132
30	6	0	-18	7	12	-22
31	-13	18	9	-12	-9	-15
32	2	0	-6	3	2	-6
33	2	0	-6	6	1	-9
34	-4	-2	0	-6	4	-7