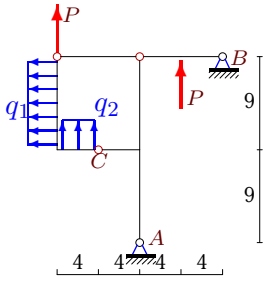


Статически определимая рама

Задача 21.1.

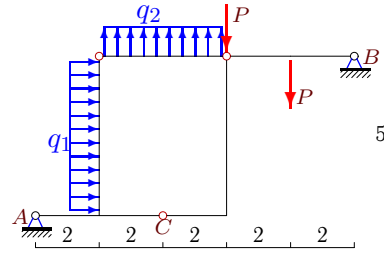
Лисов Максим



$$\begin{aligned} q_1 &= 9 \text{ кН/м}, \\ q_2 &= 33 \text{ кН/м}, \\ P &= 15 \text{ кН}. \end{aligned}$$

Задача 21.2.

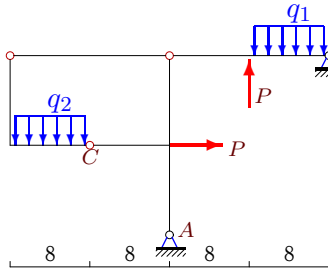
Николаев Олег



$$\begin{aligned} q_1 &= 9 \text{ кН/м}, \\ q_2 &= 21 \text{ кН/м}, \\ P &= 12 \text{ кН}. \end{aligned}$$

Задача 21.3.

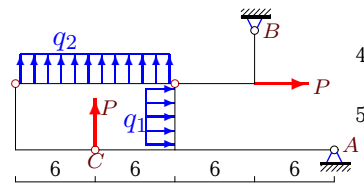
Пашенцев Дмитрий



$$\begin{aligned} q_1 &= 18 \text{ кН/м}, \\ q_2 &= 15 \text{ кН/м}, \\ P &= 3 \text{ кН}. \end{aligned}$$

Задача 21.4.

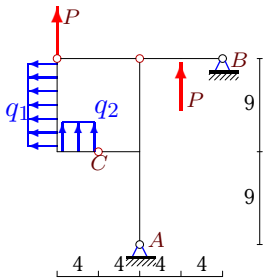
Петрова Инга



$$\begin{aligned} q_1 &= 3 \text{ кН/м}, \\ q_2 &= 27 \text{ кН/м}, \\ P &= 12 \text{ кН}. \end{aligned}$$

Задача 21.5.

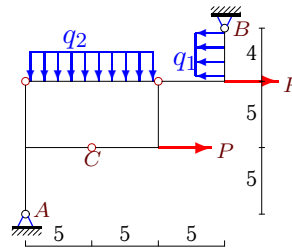
Росляков Евгений



$$\begin{aligned} q_1 &= 9 \text{ кН/м}, \\ q_2 &= 7 \text{ кН/м}, \\ P &= 36 \text{ кН}. \end{aligned}$$

Задача 21.6.

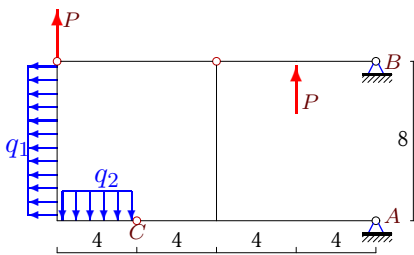
Садовников Юрий



$$\begin{aligned} q_1 &= 12 \text{ кН/м}, \\ q_2 &= 9 \text{ кН/м}, \\ P &= 33 \text{ кН}. \end{aligned}$$

Задача 21.7.

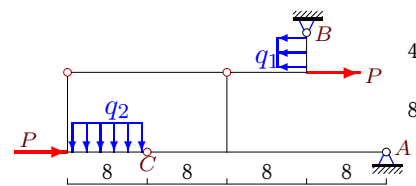
Солодовников Владимир



$$\begin{aligned} q_1 &= 9 \text{ кН/м}, \\ q_2 &= 18 \text{ кН/м}, \\ P &= 21 \text{ кН}. \end{aligned}$$

Задача 21.8.

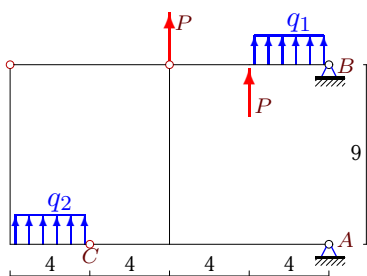
Тимошков Александр



$$\begin{aligned} q_1 &= 12 \text{ кН/м}, \\ q_2 &= 3 \text{ кН/м}, \\ P &= 39 \text{ кН}. \end{aligned}$$

Задача 21.9.

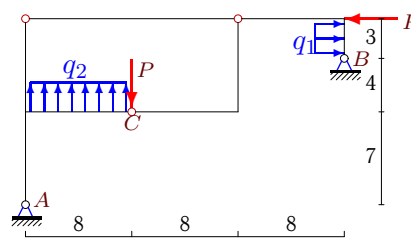
Ершов Андрей



$$\begin{aligned} q_1 &= 6 \text{ кН/м}, \\ q_2 &= 3 \text{ кН/м}, \\ P &= 24 \text{ кН}. \end{aligned}$$

Задача 21.10.

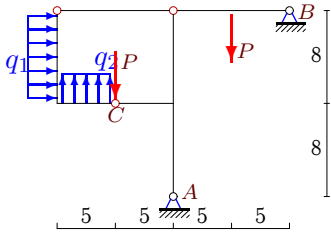
Апасьев Евгений



$$\begin{aligned} q_1 &= 3 \text{ кН/м}, \\ q_2 &= 12 \text{ кН/м}, \\ P &= 6 \text{ кН}. \end{aligned}$$

Задача 21.11.

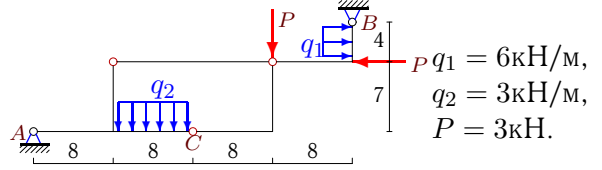
Болошевич Антон



$$\begin{aligned} q_1 &= 5 \text{ кН/м}, \\ q_2 &= 3 \text{ кН/м}, \\ P &= 9 \text{ кН}. \end{aligned}$$

Задача 21.12.

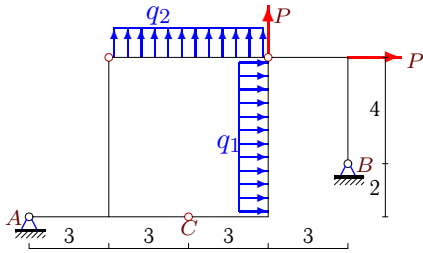
Лебедев Алексей



$$\begin{aligned} q_1 &= 6 \text{ кН/м}, \\ q_2 &= 3 \text{ кН/м}, \\ P &= 3 \text{ кН}. \end{aligned}$$

Задача 21.13.

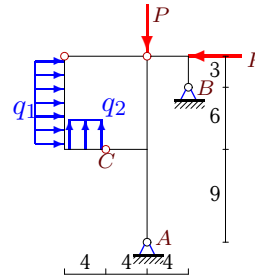
Лукьянов Степан



$$\begin{aligned} q_1 &= 9 \text{ кН/м}, \\ q_2 &= 12 \text{ кН/м}, \\ P &= 27 \text{ кН}. \end{aligned}$$

Задача 21.14.

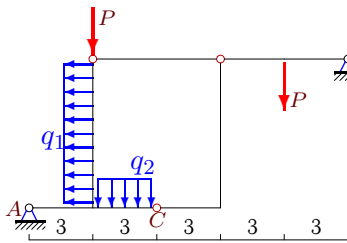
Болтышев Николай



$$\begin{aligned} q_1 &= 9 \text{ кН/м}, \\ q_2 &= 15 \text{ кН/м}, \\ P &= 9 \text{ кН}. \end{aligned}$$

Задача 21.15.

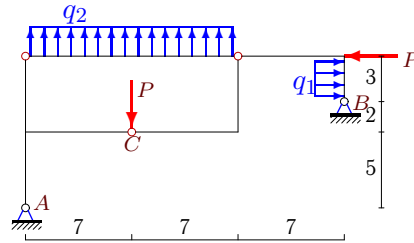
Шахбазян Манвел



$$\begin{aligned} q_1 &= 6 \text{ кН/м}, \\ q_2 &= 12 \text{ кН/м}, \\ P &= 3 \text{ кН}. \end{aligned}$$

Задача 21.16.

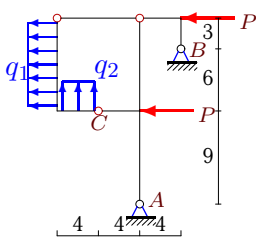
Шилов Никита



$$\begin{aligned} q_1 &= 3 \text{ кН/м}, \\ q_2 &= 27 \text{ кН/м}, \\ P &= 12 \text{ кН}. \end{aligned}$$

Задача 21.17.

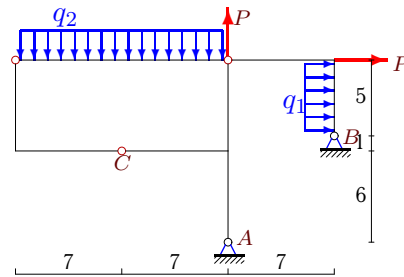
Давидян Артём



$$\begin{aligned} q_1 &= 12 \text{ кН/м}, \\ q_2 &= 36 \text{ кН/м}, \\ P &= 9 \text{ кН}. \end{aligned}$$

Задача 21.18.

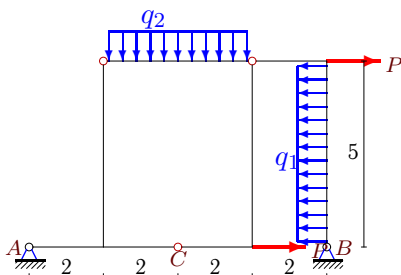
Шильников Владислав



$$\begin{aligned} q_1 &= 5 \text{ кН/м}, \\ q_2 &= 18 \text{ кН/м}, \\ P &= 39 \text{ кН}. \end{aligned}$$

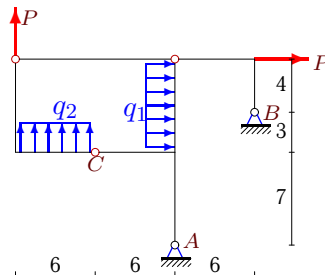
Задача 21.19.

Рудаков Александр



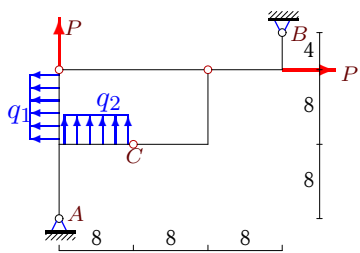
$$\begin{aligned} q_1 &= 18 \text{ кН/м}, \\ q_2 &= 3 \text{ кН/м}, \\ P &= 39 \text{ кН}. \end{aligned}$$

Задача 21.20.



$$\begin{aligned} q_1 &= 17 \text{ кН/м}, \\ q_2 &= 9 \text{ кН/м}, \\ P &= 27 \text{ кН}. \end{aligned}$$

Задача 21.21.



$$q_1 = 3 \text{ кН/м},$$
$$q_2 = 15 \text{ кН/м},$$
$$P = 36 \text{ кН}.$$

№	X_A	X_B	Y_A	Y_B	
1	70.917	10.083	-154.500	-7.500	
2	-68.100	23.100	-66.000	6.000	
3	-81.500	78.500	154.500	106.500	
4	445.731	-472.731	-20.846	-315.154	
5	45.583	35.417	-82.000	-18.000	
6	310.500	-328.500	372.000	-282.000	
7	-37.500	109.500	40.500	-10.500	
8	-88.500	58.500	6.750	17.250	
9	56.000	-56.000	-54.000	-30.000	
10	-16.350	13.350	-83.306	-6.694	
11	-5.781	-34.219	-1.500	4.500	
12	-93.600	72.600	-15.300	42.300	
13	-100.500	19.500	-73.000	-26.000	
14	-0.250	-71.750	-104.813	53.813	
15	47.357	-5.357	40.500	1.500	
16	-157.312	160.312	-295.366	-70.634	
17	79.500	46.500	-109.125	-34.875	
18	-147.000	83.000	281.214	-68.214	
19	-32.100	44.100	9.750	2.250	
20	28.107	-174.107	-197.071	116.071	
21	-36.000	24.000	-168.000	12.000	