

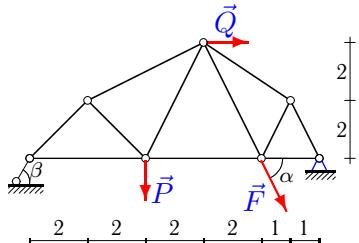
Расчет фермы (треугольная решетка)

Найти усилия в стержнях плоской фермы. Размеры даны в метрах.

Кирсанов М.Н. Решебник. Теоретическая механика/Под ред. А. И. Кириллова.– М.: ФИЗМАТЛИТ, 2008. – 384 с. (с.45.)

Задача S6.1.

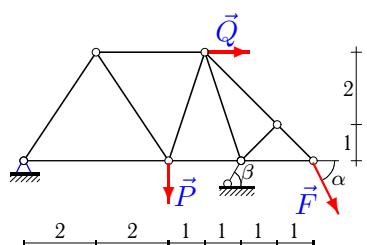
Багаев Евгений



$$\begin{aligned}P &= 25 \text{ кн}, \\F &= 6 \text{ кн}, \\Q &= 30 \text{ кн}, \\\alpha &= 55^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.3.

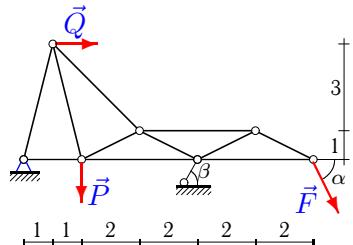
Дударев Евгений



$$\begin{aligned}P &= 45 \text{ кн}, \\F &= 16 \text{ кн}, \\Q &= 10 \text{ кн}, \\\alpha &= 75^\circ, \\\beta &= 60^\circ.\end{aligned}$$

Задача S6.5.

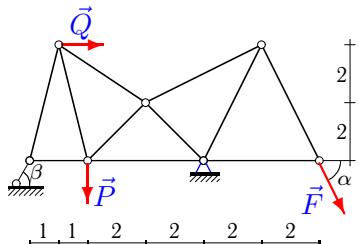
Исаев Юрий



$$\begin{aligned}P &= 20 \text{ кн}, \\F &= 31 \text{ кн}, \\Q &= 60 \text{ кн}, \\\alpha &= 50^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.7.

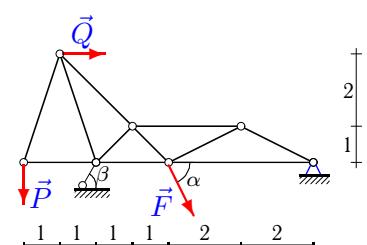
Кузин Максим



$$\begin{aligned}P &= 10 \text{ кн}, \\F &= 33 \text{ кн}, \\Q &= 60 \text{ кн}, \\\alpha &= 40^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.9.

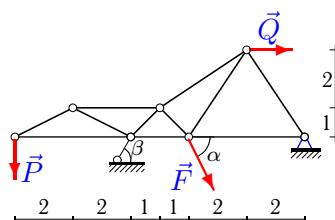
Лутохин Марк



$$\begin{aligned}P &= 25 \text{ кн}, \\F &= 12 \text{ кн}, \\Q &= 40 \text{ кн}, \\\alpha &= 55^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.2.

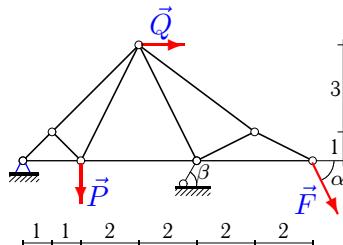
Близнюков Егор



$$\begin{aligned}P &= 45 \text{ кн}, \\F &= 15 \text{ кн}, \\Q &= 50 \text{ кн}, \\\alpha &= 75^\circ, \\\beta &= 60^\circ.\end{aligned}$$

Задача S6.4.

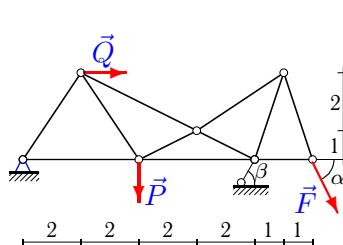
Дудка Иван



$$\begin{aligned}P &= 5 \text{ кн}, \\F &= 1 \text{ кн}, \\Q &= 60 \text{ кн}, \\\alpha &= 35^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.6.

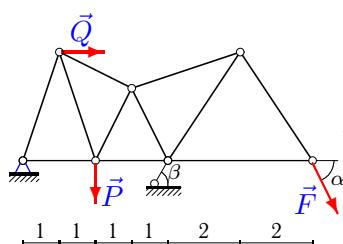
Кудрявцев Павел



$$\begin{aligned}P &= 5 \text{ кн}, \\F &= 18 \text{ кн}, \\Q &= 30 \text{ кн}, \\\alpha &= 35^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.8.

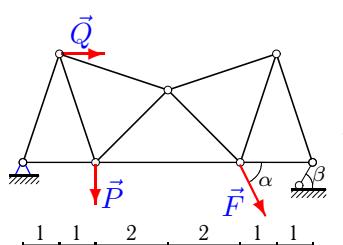
Лещенко Максим



$$\begin{aligned}P &= 20 \text{ кн}, \\F &= 1 \text{ кн}, \\Q &= 40 \text{ кн}, \\\alpha &= 50^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.10.

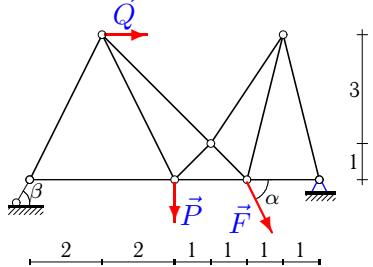
Лысов Сергей



$$\begin{aligned}P &= 30 \text{ кн}, \\F &= 9 \text{ кн}, \\Q &= 20 \text{ кн}, \\\alpha &= 60^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.11.

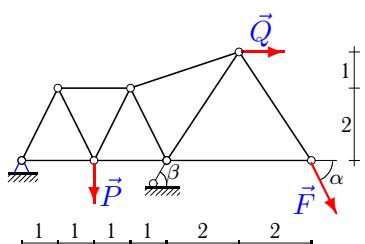
Макаров Дмитрий



$$\begin{aligned}P &= 10 \text{ кн}, \\F &= 27 \text{ кн}, \\Q &= 10 \text{ кн}, \\\alpha &= 40^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.13.

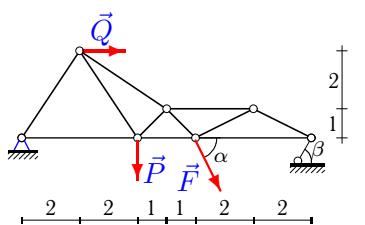
Однорог Дмитрий



$$\begin{aligned}P &= 25 \text{ кн}, \\F &= 13 \text{ кн}, \\Q &= 40 \text{ кн}, \\\alpha &= 55^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.15.

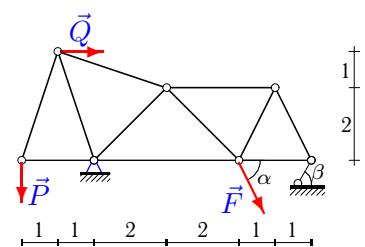
Потемкин Дмитрий



$$\begin{aligned}P &= 25 \text{ кн}, \\F &= 27 \text{ кн}, \\Q &= 50 \text{ кн}, \\\alpha &= 55^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.17.

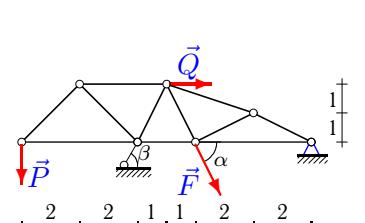
Пучков Павел



$$\begin{aligned}P &= 15 \text{ кн}, \\F &= 28 \text{ кн}, \\Q &= 20 \text{ кн}, \\\alpha &= 45^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.19.

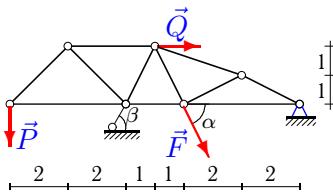
Теуважуков Антон



$$\begin{aligned}P &= 25 \text{ кн}, \\F &= 19 \text{ кн}, \\Q &= 50 \text{ кн}, \\\alpha &= 55^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.12.

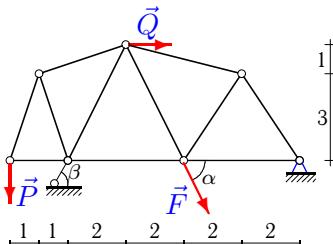
Миляев Роман



$$\begin{aligned}P &= 40 \text{ кн}, \\F &= 30 \text{ кн}, \\Q &= 50 \text{ кн}, \\\alpha &= 70^\circ, \\\beta &= 60^\circ.\end{aligned}$$

Задача S6.14.

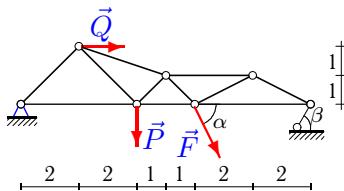
Петров Михаил



$$\begin{aligned}P &= 10 \text{ кн}, \\F &= 19 \text{ кн}, \\Q &= 60 \text{ кн}, \\\alpha &= 40^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.16.

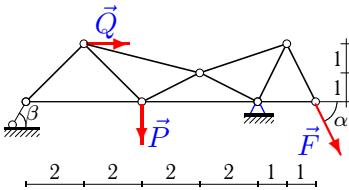
Пучков Антон



$$\begin{aligned}P &= 10 \text{ кн}, \\F &= 20 \text{ кн}, \\Q &= 50 \text{ кн}, \\\alpha &= 40^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.18.

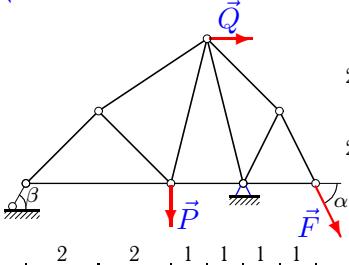
Самыгина Елизавета



$$\begin{aligned}P &= 10 \text{ кн}, \\F &= 19 \text{ кн}, \\Q &= 30 \text{ кн}, \\\alpha &= 40^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.20.

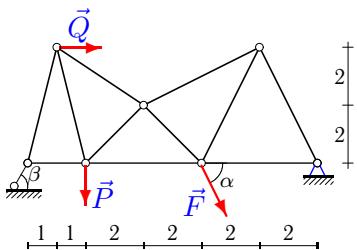
Туманов Николай



$$\begin{aligned}P &= 35 \text{ кн}, \\F &= 25 \text{ кн}, \\Q &= 10 \text{ кн}, \\\alpha &= 65^\circ, \\\beta &= 45^\circ.\end{aligned}$$

Задача S6.21.

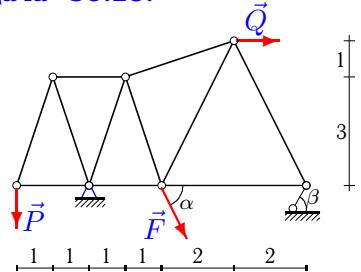
Улановский Олег



$$\begin{aligned}P &= 40 \text{ кн}, \\F &= 13 \text{ кн}, \\Q &= 60 \text{ кн}, \\\alpha &= 70^\circ, \\\beta &= 60^\circ.\end{aligned}$$

Задача S6.23.

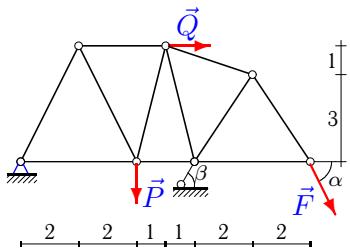
Чамлай Кирилл



$$\begin{aligned}P &= 45 \text{ кн}, \\F &= 3 \text{ кн}, \\Q &= 40 \text{ кн}, \\\alpha &= 75^\circ, \\\beta &= 60^\circ.\end{aligned}$$

Задача S6.25.

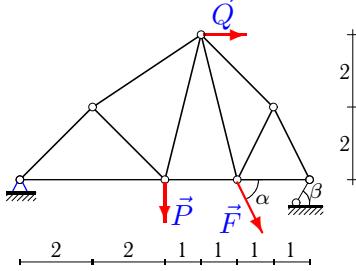
Ольховский Иван



$$\begin{aligned}P &= 40 \text{ кн}, \\F &= 4 \text{ кн}, \\Q &= 50 \text{ кн}, \\\alpha &= 70^\circ, \\\beta &= 60^\circ.\end{aligned}$$

Задача S6.22.

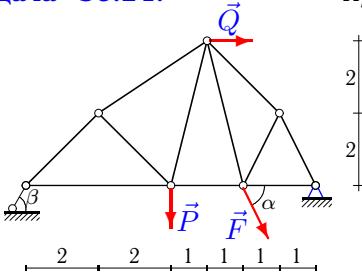
Хуан Хуань



$$\begin{aligned}P &= 10 \text{ кн}, \\F &= 4 \text{ кн}, \\Q &= 10 \text{ кн}, \\\alpha &= 40^\circ, \\\beta &= 30^\circ.\end{aligned}$$

Задача S6.24.

Ярцев Константин



$$\begin{aligned}P &= 5 \text{ кн}, \\F &= 6 \text{ кн}, \\Q &= 10 \text{ кн}, \\\alpha &= 35^\circ, \\\beta &= 30^\circ.\end{aligned}$$