

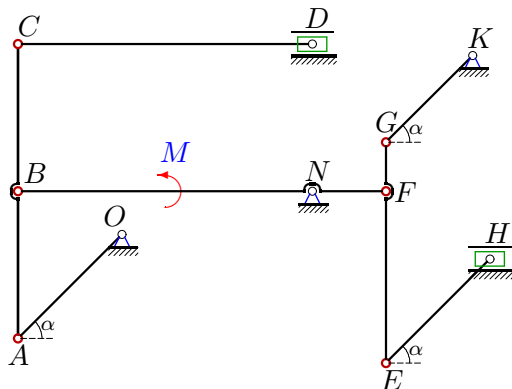
Условие равновесия механизма

Плоский многосвязный механизм с одной степенью свободы находится в равновесии. К кривошипу OA приложен момент M . Размеры даны в сантиметрах. Дан ряд p распределения дискретной случайной величины силы сопротивления в ползунах $T_i, i = 1, \dots, 4$. Найти математическое ожидание и дисперсию момента M .

Кирсанов М.Н. **Решебник. Теоретическая механика** / Под ред. А. И. Кириллова. – М.: ФИЗМАТЛИТ, 2008. – 384 с. (с.158.)

Задача L-27.1.

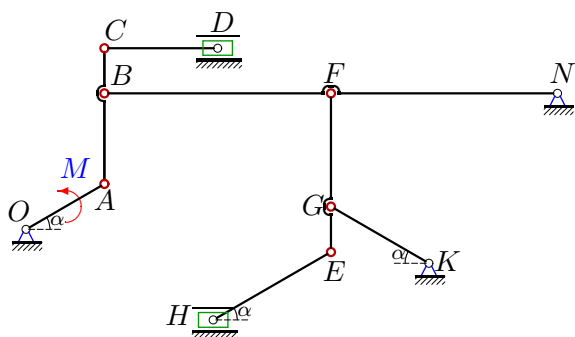
Бирбасов Арсений



$\alpha = 45^\circ$,
 $AB = 30, BC = 30$,
 $NB = 60, NF = 15$,
 $CD = 60, EH = 30$,
 $FE = 35, FG = 10$,
 $OA = 30, KG = 25$.
 $p = [0.05, 0.35, 0.35, 0.25]$,
 $T = [8.5, 7, 6.5, 5]$ Н.

Задача L-27.2.

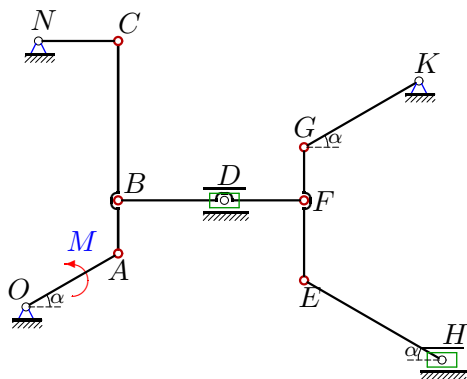
Богачев Антон



$\alpha = 30^\circ$,
 $AB = 20, BC = 10$,
 $BF = 50, NF = 50$,
 $CD = 25, EH = 30$,
 $FG = 25, GE = 10$,
 $OA = 20, KG = 25$.
 $p = [0.1, 0.3, 0.4, 0.2]$,
 $T = [8, 7, 6, 5.5]$ Н.

Задача L-27.3.

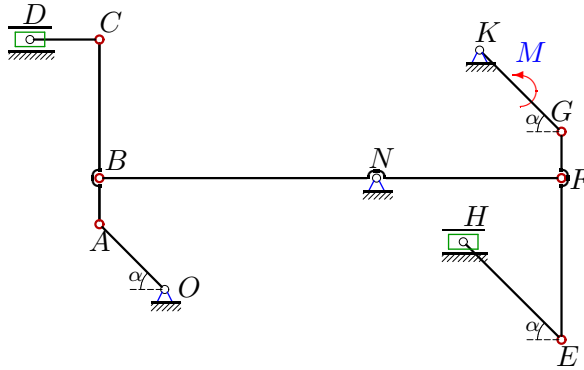
Вальтер Александр



$\alpha = 30^\circ$,
 $AB = 10, BC = 30$,
 $DB = 20, DF = 15$,
 $NC = 15, EH = 30$,
 $FE = 15, FG = 10$,
 $OA = 20, KG = 25$.
 $p = [0.1, 0.3, 0.4, 0.2]$,
 $T = [8, 7, 6.5, 5.5]$ Н.

Задача L-27.4.

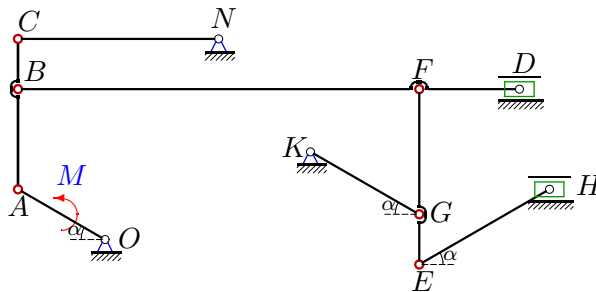
Воробьев Олег



$\alpha = 45^\circ$,
 $AB = 10, BC = 30,$
 $NB = 60, NF = 40,$
 $CD = 15, EH = 30,$
 $FE = 35, FG = 10,$
 $OA = 20, KG = 25.$
 $p = [0.1, 0.3, 0.35, 0.25],$
 $T = [8.5, 7.5, 6.5, 5] \text{ Н.}$

Задача L-27.5.

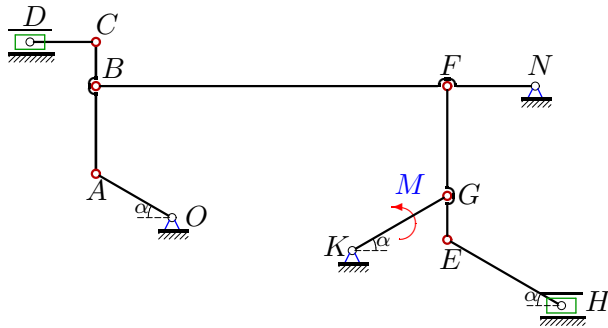
Гранкин Михаил



$\alpha = 30^\circ$,
 $AB = 20, BC = 10,$
 $BF = 80, FD = 20,$
 $NC = 40, EH = 30,$
 $FE = 35, FG = 25,$
 $OA = 20, KG = 25.$
 $p = [0.05, 0.35, 0.4, 0.2],$
 $T = [8, 7, 6, 5] \text{ Н.}$

Задача L-27.6.

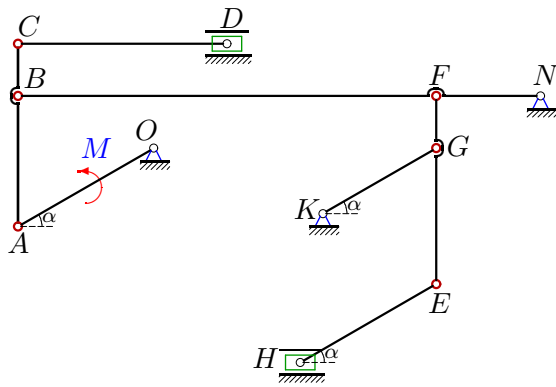
Дзабиев Артур



$\alpha = 30^\circ$,
 $AB = 20, BC = 10,$
 $BF = 80, NF = 20,$
 $CD = 15, EH = 30,$
 $FG = 25, GE = 10,$
 $OA = 20, KG = 25.$
 $p = [0.05, 0.35, 0.4, 0.2],$
 $T = [8, 7.5, 6, 5] \text{ Н.}$

Задача L-27.7.

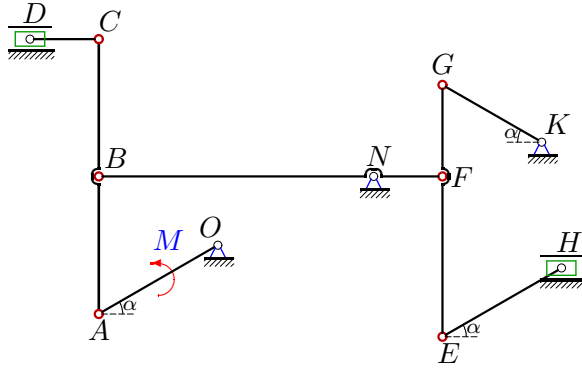
Ильин Иван



$\alpha = 30^\circ$,
 $AB = 25, BC = 10,$
 $BF = 80, NF = 20,$
 $CD = 40, EH = 30,$
 $FG = 10, GE = 26,$
 $OA = 30, KG = 25.$
 $p = [0.1, 0.3, 0.4, 0.2],$
 $T = [8, 7.5, 6.5, 5] \text{ Н.}$

Задача L-27.8.

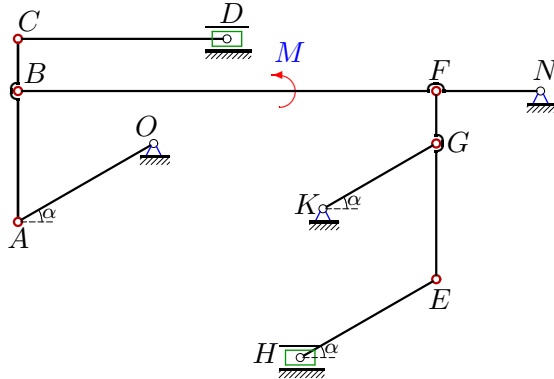
Касимов Саид



$\alpha = 30^\circ$,
 $AB = 30, BC = 30,$
 $NB = 60, NF = 15,$
 $CD = 15, EH = 30,$
 $FE = 35, FG = 20,$
 $OA = 30, KG = 25.$
 $p = [0.05, 0.35, 0.4, 0.2],$
 $T = [8, 7.5, 6, 5] \text{ Н.}$

Задача L-27.9.

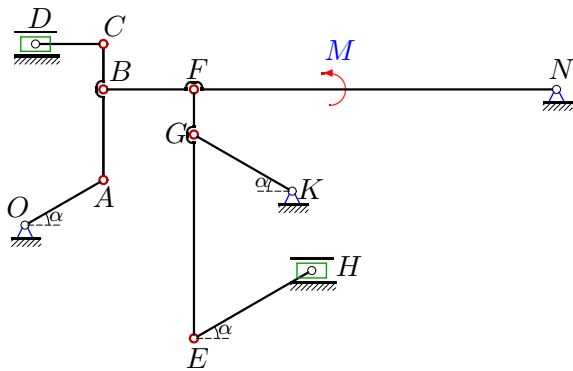
Ковалев Роман



$\alpha = 30^\circ$,
 $AB = 25, BC = 10,$
 $BF = 80, NF = 20,$
 $CD = 40, EH = 30,$
 $FG = 10, GE = 26,$
 $OA = 30, KG = 25.$
 $p = [0.1, 0.3, 0.4, 0.2],$
 $T = [8, 7, 6.5, 5] \text{ Н.}$

Задача L-27.10.

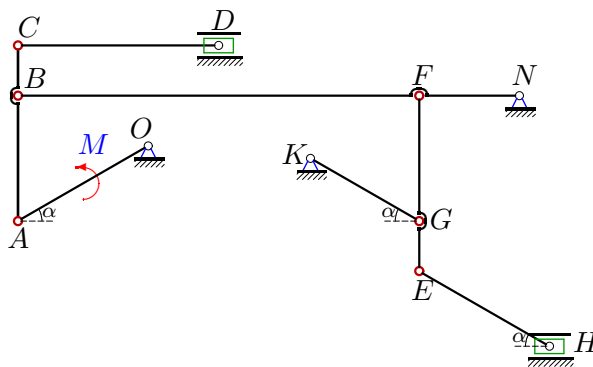
Матросов Сергей



$\alpha = 30^\circ$,
 $AB = 20, BC = 10,$
 $BF = 20, NF = 80,$
 $CD = 15, EH = 30,$
 $FG = 10, GE = 45,$
 $OA = 20, KG = 25.$
 $p = [0.05, 0.35, 0.4, 0.2],$
 $T = [8, 7.5, 6, 5] \text{ Н.}$

Задача L-27.11.

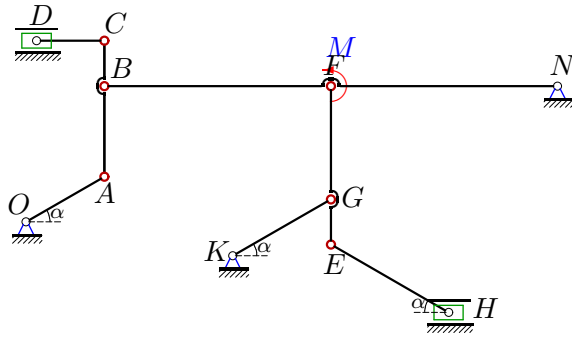
Тенютин Роман



$\alpha = 30^\circ$,
 $AB = 25, BC = 10,$
 $BF = 80, NF = 20,$
 $CD = 40, EH = 30,$
 $FG = 25, GE = 10,$
 $OA = 30, KG = 25.$
 $p = [0.05, 0.35, 0.35, 0.25],$
 $T = [8.5, 7.5, 6, 5.5] \text{ Н.}$

Задача L-27.12.

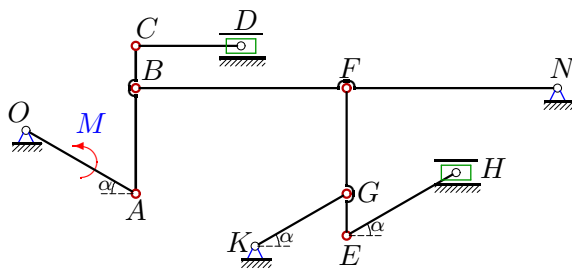
Фролов Михаил



$\alpha = 30^\circ$,
 $AB = 20, BC = 10,$
 $BF = 50, NF = 50,$
 $CD = 15, EH = 30,$
 $FG = 25, GE = 10,$
 $OA = 20, KG = 25.$
 $p = [0.05, 0.35, 0.4, 0.2],$
 $T = [8, 7.5, 6, 5] \text{ Н.}$

Задача L-27.13.

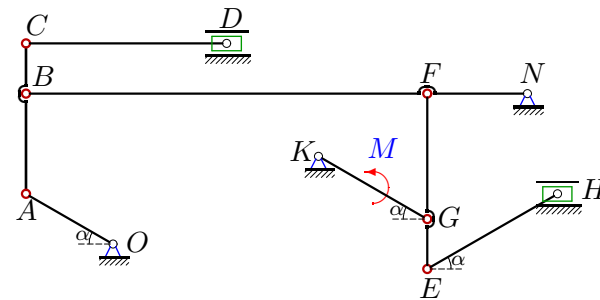
Черепанов Сергей



$\alpha = 30^\circ$,
 $AB = 25, BC = 10,$
 $BF = 50, NF = 50,$
 $CD = 25, EH = 30,$
 $FG = 25, GE = 10,$
 $OA = 30, KG = 25.$
 $p = [0.1, 0.3, 0.4, 0.2],$
 $T = [8, 7.5, 6.5, 5.5] \text{ Н.}$

Задача L-27.14.

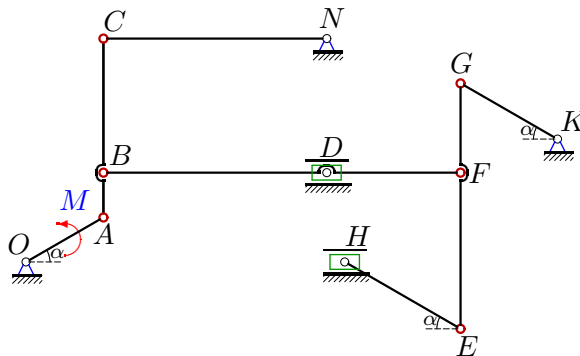
Шаров Иван



$\alpha = 30^\circ$,
 $AB = 20, BC = 10,$
 $BF = 80, NF = 20,$
 $CD = 40, EH = 30,$
 $FG = 25, GE = 10,$
 $OA = 20, KG = 25.$
 $p = [0.05, 0.35, 0.35, 0.25],$
 $T = [8.5, 7, 6.5, 5.5] \text{ Н.}$

Задача L-27.15.

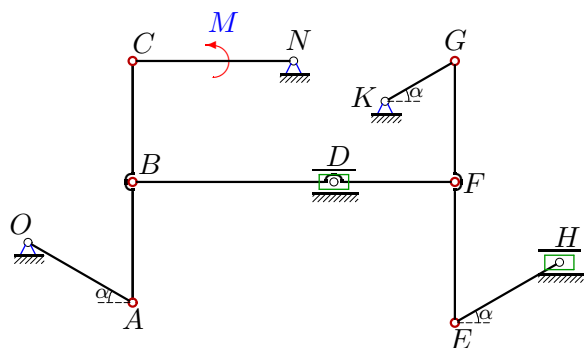
Коломников Ю.



$\alpha = 30^\circ$,
 $AB = 10, BC = 30,$
 $DB = 50, DF = 30,$
 $NC = 50, EH = 30,$
 $FE = 35, FG = 20,$
 $OA = 20, KG = 25.$
 $p = [0.1, 0.3, 0.4, 0.2],$
 $T = [8, 7.5, 6.5, 5.5] \text{ Н.}$

Задача L-27.16.

Лебедев А.



$$\alpha = 30^\circ,$$

$$AB = 30, BC = 30,$$

$$DB = 50, DF = 30,$$

$$NC = 40, EH = 30,$$

$$FE = 35, FG = 30,$$

$$OA = 30, KG = 20.$$

$$p = [0.05, 0.35, 0.35, 0.25],$$

$$T = [8.5, 7, 6.5, 5.5] \text{ H.}$$