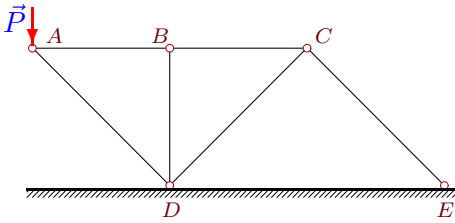


Плоская конструкция из 6 стержней

Кирсанов М.Н. **Решбник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.: ФИЗМАТЛИТ, 2008. — 384 с. (с.14.)

Задача S-1.1.

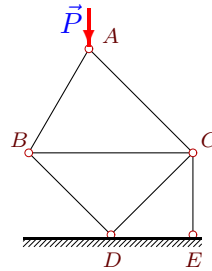
Волковой Илья



$P=28$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.2.

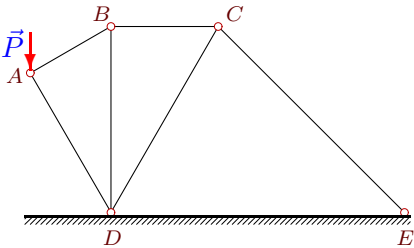
Никитенков Федор



$P=12$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.3.

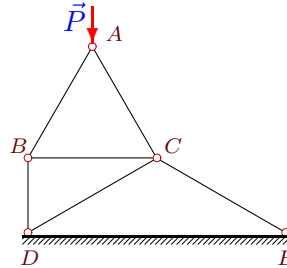
Шубин Станислав



$P=11$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.4.

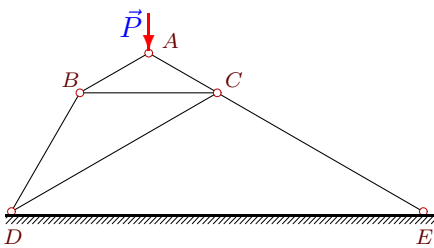
Чумаков Иван



$P=18$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.5.

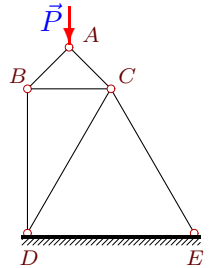
Хачалов Магомед



$P=14$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.6.

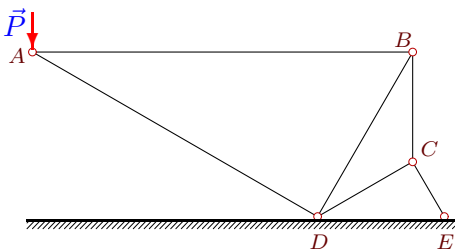
Оршак Сергей



$P=13$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.7.

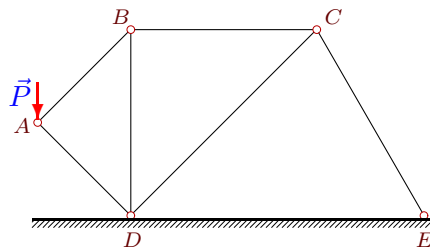
Ярилин Иван



$P=9$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=90^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.8.

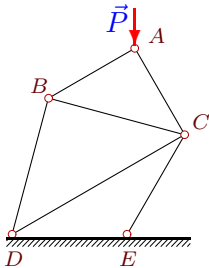
Костин Д.



$P=30$ кН,
 $\angle ABD=45^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.9.

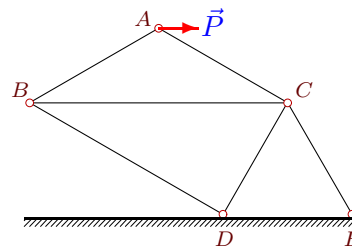
Слявин Ярослав



$P=17$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.10.

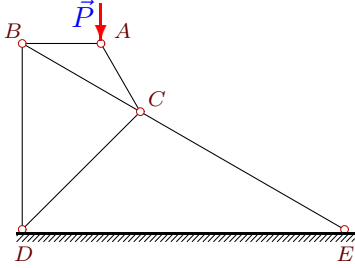
Семенова Ирина



$P=26$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.11.

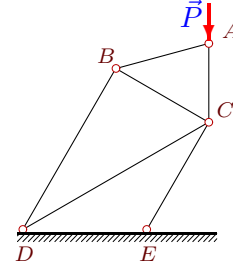
Акулина Даша



$P=10$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=75^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.12.

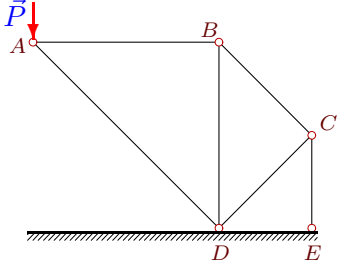
Картушин Александр



$P=7$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.13.

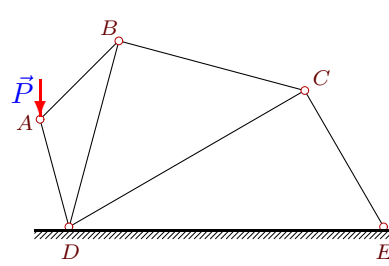
Горбатенко Егор



$P=23$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.14.

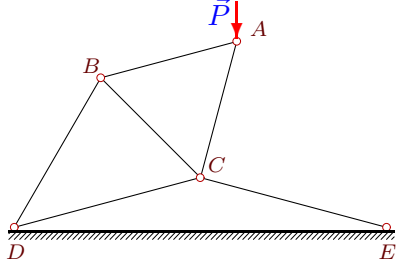
Юшин Илья



$P=26$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.15.

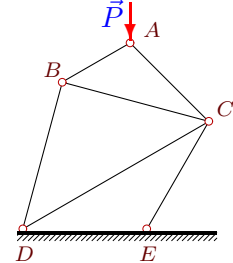
Биль Евгений



$P=3$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=15^\circ$,
 $\angle CED=15^\circ$.

Задача S-1.16.

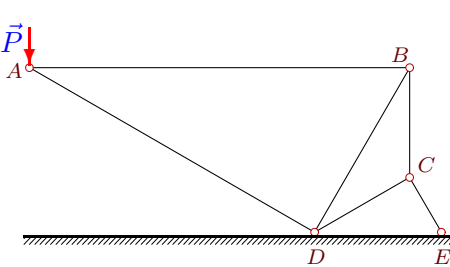
Муржи Николай



$P=16$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.17.

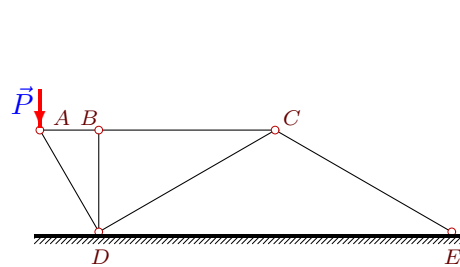
Петухов Антон



$P=23$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=90^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.18.

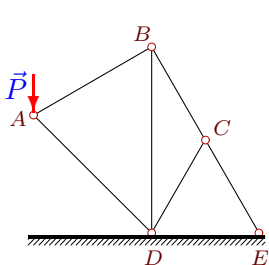
Губин Иван



$P=19$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.19.

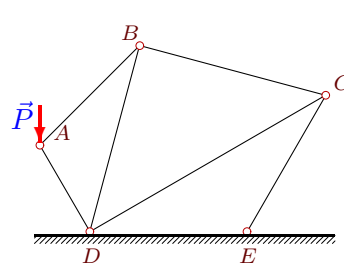
Баранов Максим



$P=19$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.20.

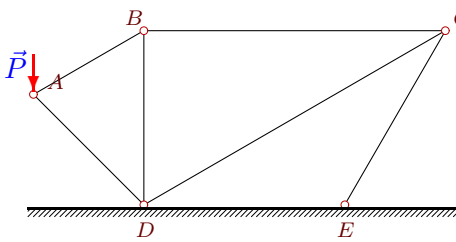
Оптиев Владислав



$P=1$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.21.

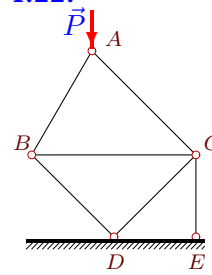
Парохин В.



$P=27$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.22.

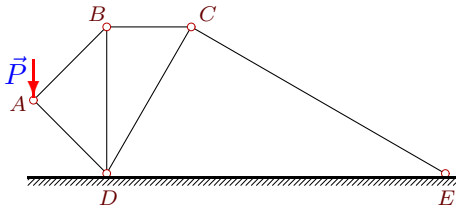
Глядяев А.Д.



$P=5$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.23.

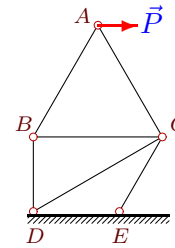
Руфин Никита



$P=6$ кН,
 $\angle ABD=45^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.24.

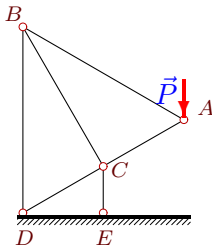
Петров Кирилл



$P=17$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.25.

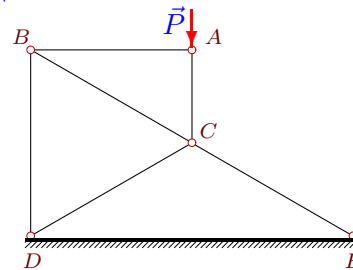
Исаков Александр



$P=14$ кН,
 $\angle ACB=90^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=90^\circ$.

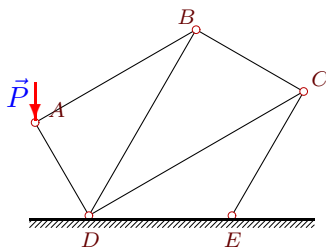
Задача S-1.26.

Чаймелов Андрей



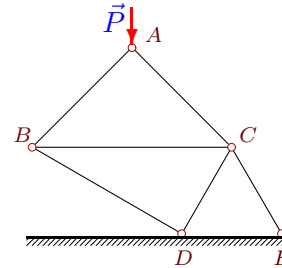
$P=10$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.27.



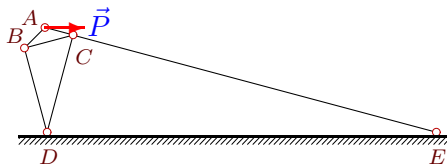
$P=18$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.28.



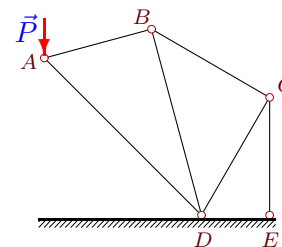
$P=22$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.29.



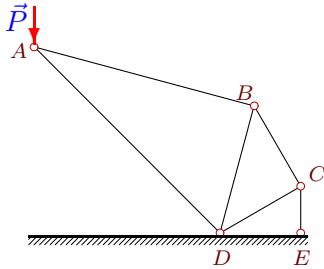
$P=32$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=75^\circ$,
 $\angle CED=15^\circ$.

Задача S-1.30.



$P=4$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.31.



$P=21$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=90^\circ$.

S-1 Ответы.
Плоская конструкция из 6 стержней

01.10.2013

	S_{AB}	S_{AC}	S_{AD}	S_{BC}	S_{BD}	S_{CD}	S_{CE}	
1	28.000	—	-39.598	28.000	0.000	-19.799	19.799	Волкобой Илья
2	-8.785	-6.212	—	12.000	-10.759	-10.759	3.215	Никитенков Федор
3	5.500	—	-9.526	4.763	-2.750	-3.487	4.271	Шубин Станислав
4	-10.392	-10.392	—	5.196	-9.000	-9.000	-9.000	Чумаков Иван
5	-14.000	-14.000	—	8.083	-8.083	-4.667	-9.333	Хачалов Магомед
6	-9.192	-9.192	—	6.500	-6.500	-3.753	-3.753	Оршак Сергей
7	15.588	—	-18.000	27.000	-31.177	13.500	23.383	Ярилин Иван
8	21.213	—	-21.213	15.000	-15.000	-13.449	10.981	Костин Д.
9	-8.500	-14.722	—	6.010	-6.010	13.889	-20.945	Слявин Ярослав
10	15.011	-15.011	—	-26.000	15.011	34.667	-43.333	Семенова Ирина
11	-5.774	-11.547	—	6.667	-3.333	-5.977	-4.880	Акулина Даша
12	0.000	-7.000	—	-0.000	0.000	7.000	-12.124	Картушин Александр
13	23.000	—	-32.527	32.527	-23.000	-32.527	46.000	Горбатенко Егор
14	7.770	—	-21.229	3.885	-6.729	-2.747	2.747	Юшин Илья
15	0.897	-3.346	—	-0.656	0.804	-7.348	-6.932	Биль Евгений
16	-11.713	-14.345	—	8.282	-8.282	11.713	-16.000	Муржи Николай
17	39.837	—	-46.000	69.000	-79.674	34.500	59.756	Петухов Антон
18	10.970	—	-21.939	10.970	-0.000	-6.333	6.333	Губин Иван
19	13.909	—	-17.035	24.091	-27.818	-0.000	24.091	Баранов Максим
20	0.518	—	-0.732	0.259	-0.448	-0.500	0.366	Оптиев Владислав
21	19.765	—	-24.208	17.117	-9.883	-29.648	17.117	Парохин В.
22	-3.660	-2.588	—	5.000	-4.483	-4.483	1.340	Глядяев А.Д.
23	4.243	—	-4.243	3.000	-3.000	-1.500	2.598	Руфин Никита
24	17.000	-17.000	—	-8.500	14.722	44.167	-42.500	Петров Кирилл
25	14.000	-14.000	—	-24.249	14.000	0.000	-28.000	Исаков Александр
26	0.000	-10.000	—	-0.000	0.000	-10.000	-10.000	Чаймелов Андрей
27	9.000	—	-15.588	4.500	-7.794	-9.000	7.794	
28	-15.556	-15.556	—	30.053	-22.000	-25.403	12.702	
29	9.563	-26.128	—	-8.282	4.782	4.141	-33.300	
30	3.266	—	-4.461	4.619	-3.266	-8.000	9.238	
31	29.698	—	-40.569	42.000	-29.698	-24.249	48.497	