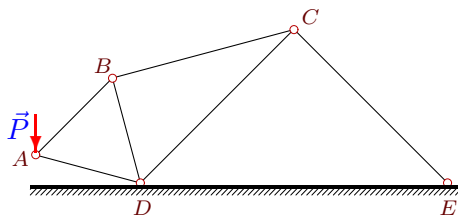


Плоская конструкция из 6 стержней

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

Задача S-1.1.

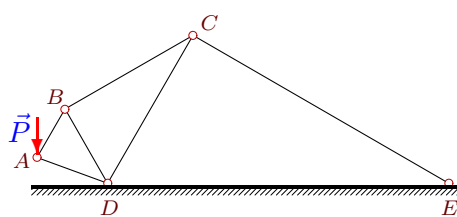
Землянухина Анна



$P=12$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.2.

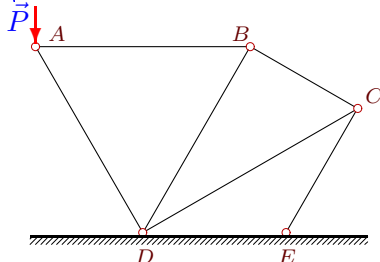
Судариков Святослав



$P=11$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=40^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.3.

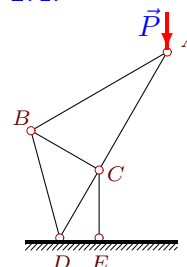
Фоменков Илья



$P=6$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.4.

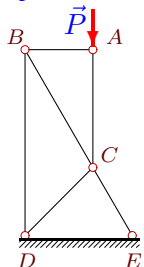
Широкова Мария



$P=10$ кН,
 $\angle ACB=90^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.5.

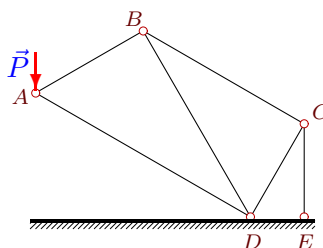
Мамедов Фамин



$P=30$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=105^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.6.

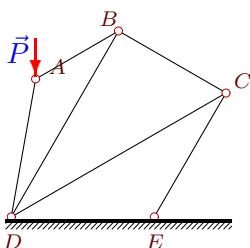
Гусева Настасья



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

Задача S-1.7.

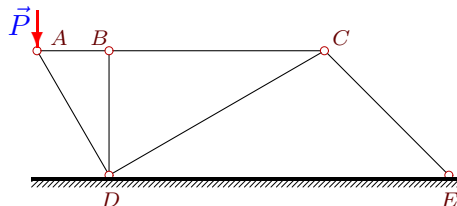
Крылов Алексей



$P=29$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=20^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.8.

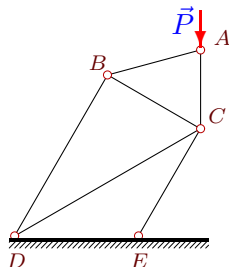
Судаков Федор



$P=10$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.9.

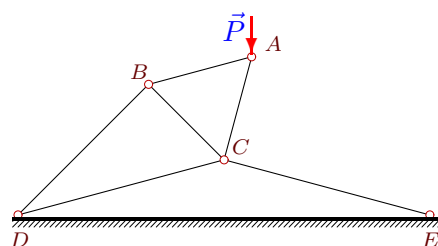
Жгун Юлия



$P=10$ 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-1.10.

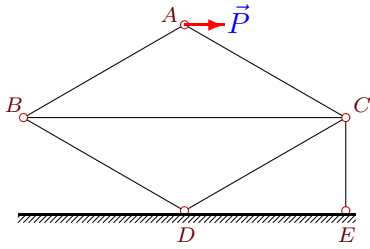
Козлова Маргарита



$P=4$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=15^\circ$,
 $\angle CED=15^\circ$.

Задача S-1.11.

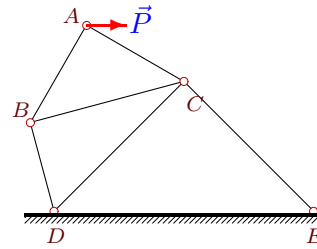
Павлов А.



$P=1$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=120^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.12.

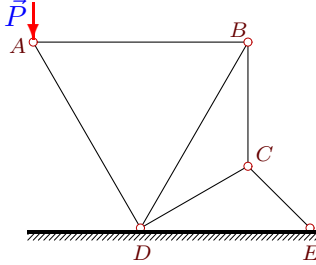
Афанасьева А.



$P=4$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.13.

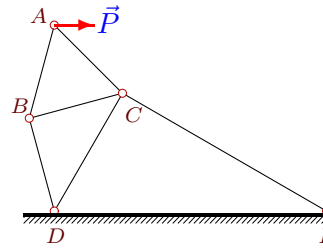
Чехранова О.



$P=8$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.14.

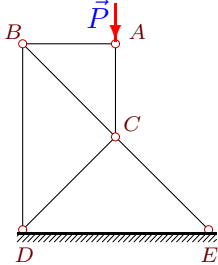
Никулина А.



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

Задача S-1.15.

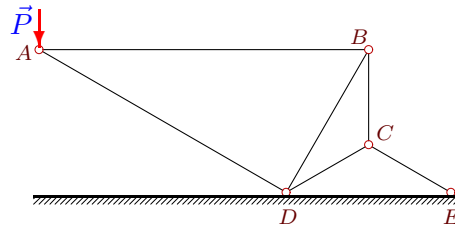
Колесников Глеб



$P=14$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

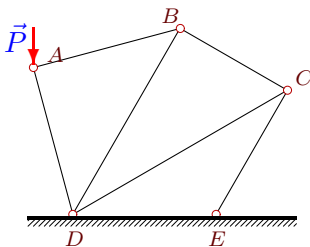
Задача S-1.16.

Тябукт Елизавета



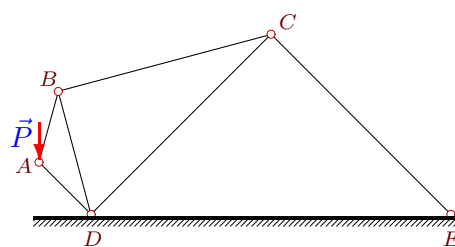
$P=19$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=90^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.17.



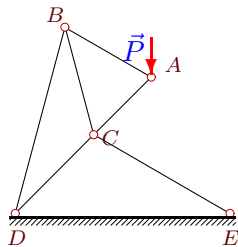
$P=3$ кН,
 $\angle ABD=45^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.18.



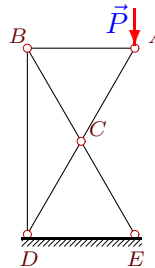
$P=14$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.19.



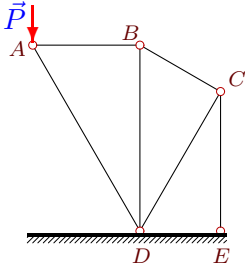
$P=3$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.20.



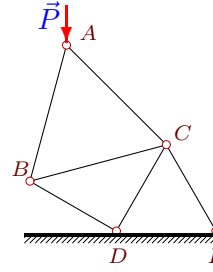
$P=27$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.21.



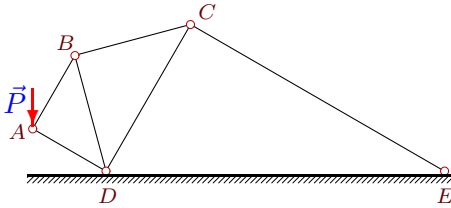
$P=22$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.22.



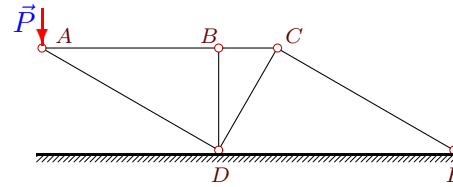
$P=7$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.23.



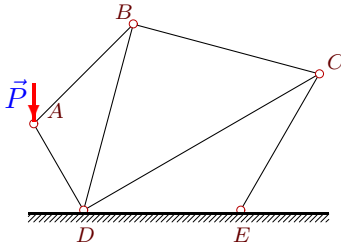
$P=31$ кН,
 $\angle ABD=45^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.24.



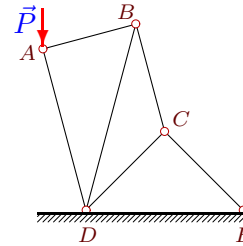
$P=24$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.25.



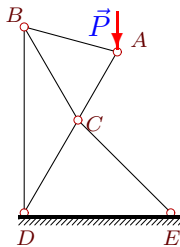
$P=22$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S-1.26.



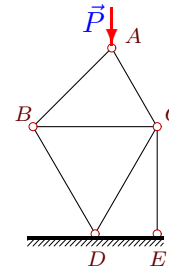
$P=20$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.27.



$P=29$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.28.



$P=28$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=90^\circ$.

Ответы.

Плоская конструкция из 6 стержней

06.10.2015

	S_{AB}	S_{AC}	S_{AD}	S_{BC}	S_{BD}	S_{CD}	S_{CE}	
1	13.384	—	-9.798	11.591	-6.692	-10.038	5.796	Землянухина Анна
2	10.496	—	-5.585	9.090	-5.248	-7.872	4.545	Судариков Святослав
3	3.464	—	-6.928	3.000	-1.732	-6.000	5.196	Фоменков Илья
4	10.000	-17.321	—	-13.660	12.247	6.340	-27.321	Широкова Мария
5	0.000	-30.000	—	-0.000	0.000	-15.529	-21.962	Мамедов Фамин
6	4.000	—	-4.000	8.000	-6.928	-13.856	16.000	Гусева Настасья
7	-6.574	—	-32.785	-3.287	5.693	6.574	-5.693	Крылов Алексей
8	5.774	—	-11.547	5.774	-0.000	-4.226	2.989	Судаков Федор
9	0.000	-10.000	—	-0.000	0.000	10.000	-17.321	Жгун Юлия
10	1.195	-4.461	—	-0.598	1.035	-9.521	-8.763	Козлова Маргарита
11	0.577	-0.577	—	-1.000	0.577	1.732	-1.155	Павлов А.
12	2.000	-3.464	—	-1.414	1.414	2.121	-4.053	Афанасьева А.
13	4.619	—	-9.238	8.000	-9.238	5.856	7.173	Чехранова О.
14	10.614	-14.500	—	-5.307	9.192	-0.000	-17.758	Никулина А.
15	-0.000	-14.000	—	0.000	-0.000	-9.899	-9.899	Колесников Глеб
16	32.909	—	-38.000	57.000	-65.818	57.000	57.000	Тябут Елизавета
17	0.776	—	-2.898	0.549	-0.549	-1.098	0.951	
18	11.431	—	-4.184	5.715	-9.899	-4.950	2.858	
19	2.196	-2.690	—	-4.243	3.106	-5.796	-3.804	
20	15.588	-31.177	—	-31.177	27.000	-31.177	-31.177	
21	12.702	—	-25.403	14.667	-7.333	-25.403	29.333	
22	-5.715	-2.092	—	7.807	-7.000	-8.083	4.041	
23	26.847	—	-15.500	18.984	-18.984	-13.423	13.423	
24	41.569	—	-48.000	41.569	-0.000	-20.785	36.000	
25	11.388	—	-16.105	5.694	-9.862	-11.000	8.053	
26	5.176	—	-19.319	8.966	-10.353	4.483	7.765	
27	15.012	-29.000	—	-29.000	21.229	-36.771	-26.001	
28	-14.494	-20.497	—	16.166	-11.834	-11.834	-7.503	

S-1 файл o1sdsB