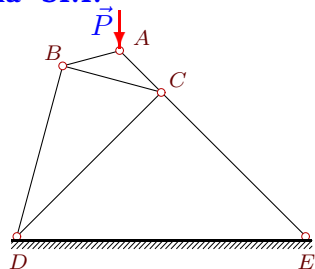


Плоская конструкция из 6 стержней

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

Задача S1.1.

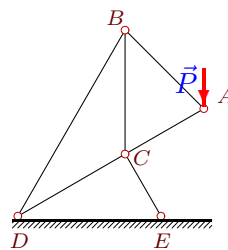
Колякина Лидия



$P=24$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

Задача S1.2.

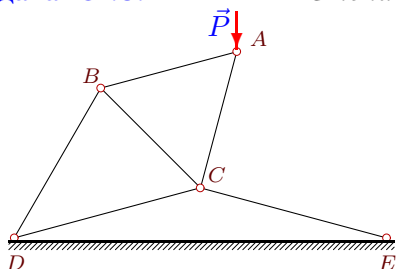
Завидный Антон



$P=5$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=60^\circ$.

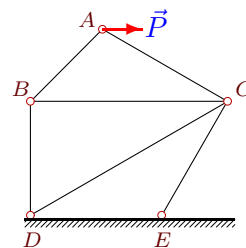
Задача S1.3.

Степанишин Дмитрий



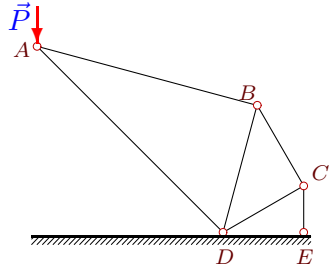
$P=5$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=15^\circ$,
 $\angle CED=15^\circ$.

Задача S1.4.



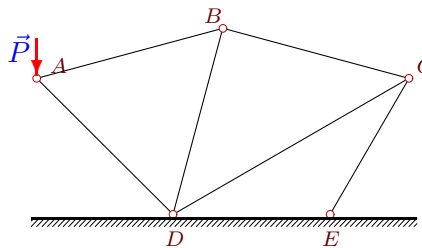
$P=18$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S1.5.



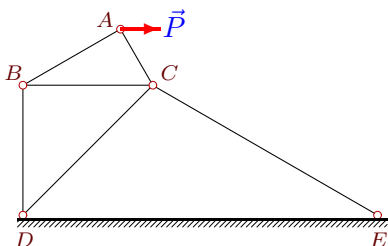
$P=16$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=90^\circ$.

Задача S1.6.



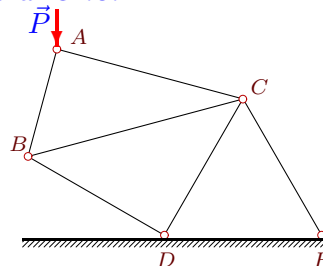
$P=30$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S1.7.



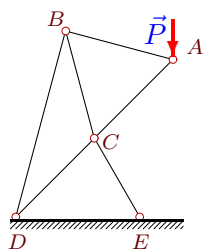
$P=29$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=45^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=30^\circ$.

Задача S1.8.



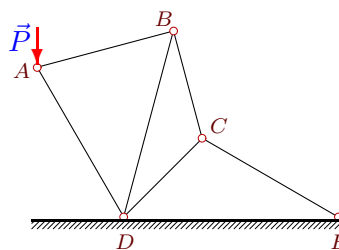
$P=8$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S1.9.



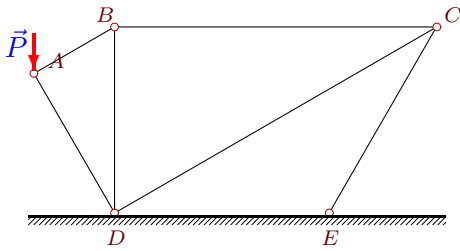
$P=17$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=60^\circ$.

Задача S1.10.



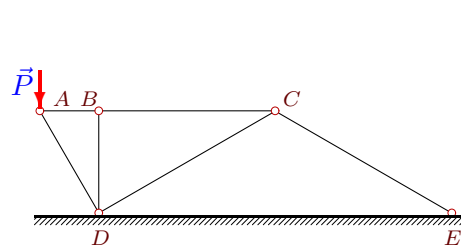
$P=14$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=30^\circ$.

Задача S1.11.



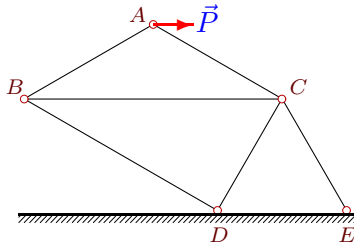
$P=6$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S1.12.



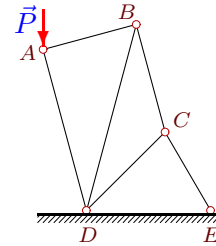
$P=28$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=30^\circ$.

Задача S1.13.



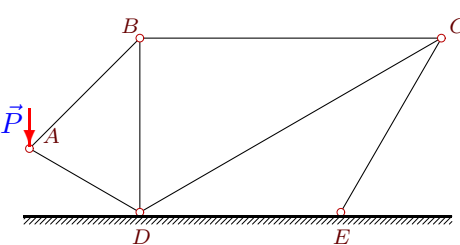
$P=21$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

Задача S1.14.



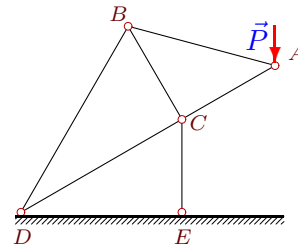
$P=29$ кН,
 $\angle ABD=60^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=60^\circ$.

Задача S1.15.



$P=16$ кН,
 $\angle ABD=45^\circ$,
 $\angle ADB=60^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=120^\circ$.

Задача S1.16.



$P=1$ кН,
 $\angle ACB=90^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=90^\circ$.

S1 Ответы.
Плоская конструкция из 6 стержней

26.02.2012

	S_{AB}	S_{AC}	S_{AD}	S_{BC}	S_{BD}	S_{CD}	S_{CE}	
1	-19.596	-26.769	—	16.971	-9.798	-8.485	-12.072	Колякина Лидия
2	4.483	-3.660	—	-8.660	6.340	-7.990	-7.500	Завидный Антон
3	1.494	-5.577	—	-1.094	1.340	-12.247	-11.554	Степанишин Дмитрий
4	9.317	-13.177	—	-6.588	6.588	37.765	-29.412	
5	22.627	—	-30.910	32.000	-22.627	-18.475	36.950	
6	24.495	—	-33.461	21.213	-12.247	-40.981	30.000	
7	25.115	-14.500	—	-21.750	12.557	3.753	-30.422	
8	-7.727	-2.071	—	10.556	-9.464	-10.083	6.309	
9	13.880	-18.961	—	-27.761	24.042	-26.400	-24.890	
10	7.247	—	-14.000	12.552	-14.494	9.189	11.254	
11	3.000	—	-5.196	2.598	-1.500	-4.500	2.598	
12	16.166	—	-32.332	16.166	-0.000	-9.333	9.333	
13	12.124	-12.124	—	-21.000	12.124	28.000	-35.000	
14	7.506	—	-28.012	13.000	-15.012	3.483	11.656	
15	14.345	—	-11.713	10.144	-10.144	-17.569	10.144	
16	1.225	-1.366	—	-1.366	1.000	-0.577	-1.577	