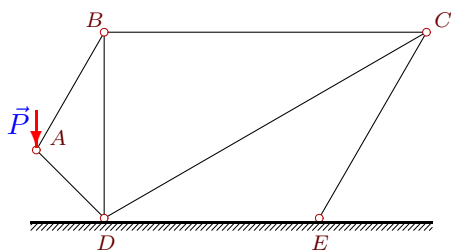


# Плоская конструкция из 6 стержней

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

### Задача 1.1.

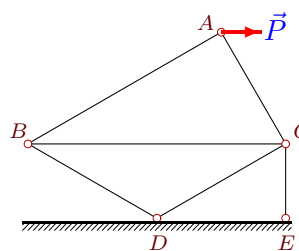
*Лисов Максим*



$P=23$  кН,  
 $\angle ABD=30^\circ$ ,  
 $\angle ADB=45^\circ$ ,  
 $\angle BDC=60^\circ$ ,  
 $\angle BCD=30^\circ$ ,  
 $\angle CDE=30^\circ$ ,  
 $\angle CED=120^\circ$ .

### Задача 1.2.

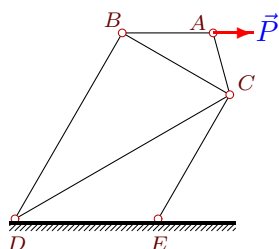
*Николаев Олег*



$P=22$  кН,  
 $\angle ACB=60^\circ$ ,  
 $\angle ABC=30^\circ$ ,  
 $\angle BDC=120^\circ$ ,  
 $\angle BCD=30^\circ$ ,  
 $\angle CDE=30^\circ$ ,  
 $\angle CED=90^\circ$ .

### Задача 1.3.

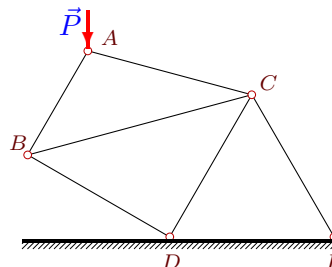
*Пашенцев Дмитрий*



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

### Задача 1.4.

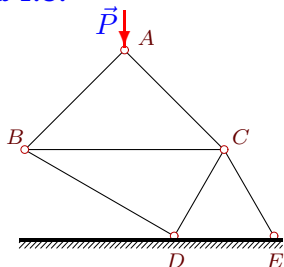
*Петрова Инга*



$P=1$  кН,  
 $\angle ACB=30^\circ$ ,  
 $\angle ABC=45^\circ$ ,  
 $\angle BDC=90^\circ$ ,  
 $\angle BCD=45^\circ$ ,  
 $\angle CDE=60^\circ$ ,  
 $\angle CED=60^\circ$ .

### Задача 1.5.

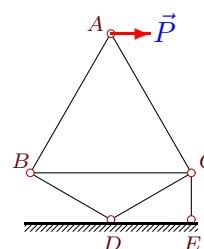
*Росляков Евгений*



$P=5$  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 1.6.

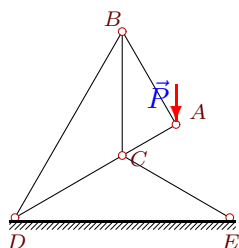
*Садовников Юрий*



$P=21$  кН,  
 $\angle ACB=60^\circ$ ,  
 $\angle ABC=60^\circ$ ,  
 $\angle BDC=120^\circ$ ,  
 $\angle BCD=30^\circ$ ,  
 $\angle CDE=30^\circ$ ,  
 $\angle CED=90^\circ$ .

### Задача 1.7.

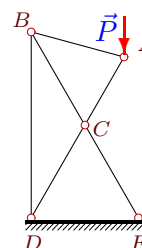
*Солодовников Владимир*



$P=25$  кН,  
 $\angle ACB=60^\circ$ ,  
 $\angle ABC=30^\circ$ ,  
 $\angle BDC=30^\circ$ ,  
 $\angle BCD=120^\circ$ ,  
 $\angle CDE=30^\circ$ ,  
 $\angle CED=30^\circ$ .

### Задача 1.8.

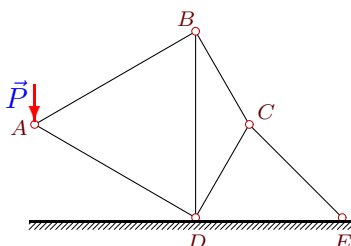
*Тимошков Александр*



$P=25$  кН,  
 $\angle ACB=60^\circ$ ,  
 $\angle ABC=45^\circ$ ,  
 $\angle BDC=30^\circ$ ,  
 $\angle BCD=120^\circ$ ,  
 $\angle CDE=60^\circ$ ,  
 $\angle CED=60^\circ$ .

### Задача 1.9.

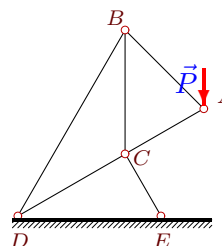
*Ершов Андрей*



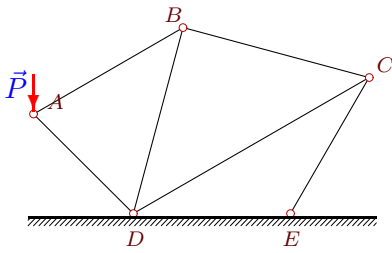
$P=8$  кН,  
 $\angle ABD=60^\circ$ ,  
 $\angle ADB=60^\circ$ ,  
 $\angle BDC=30^\circ$ ,  
 $\angle BCD=120^\circ$ ,  
 $\angle CDE=60^\circ$ ,  
 $\angle CED=45^\circ$ .

### Задача 1.10.

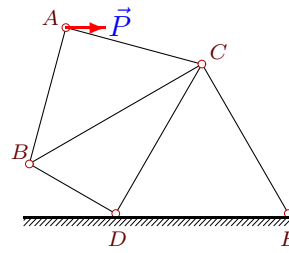
*Апасьев Евгений*



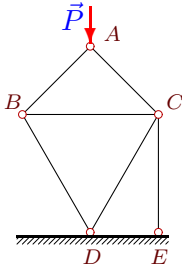
$P=16$  кН,  
 $\angle ACB=60^\circ$ ,  
 $\angle ABC=45^\circ$ ,  
 $\angle BDC=30^\circ$ ,  
 $\angle BCD=120^\circ$ ,  
 $\angle CDE=30^\circ$ ,  
 $\angle CED=60^\circ$ .

**Задача 1.11.***Болошевич Антон*

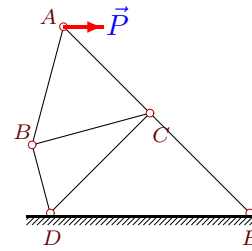
$P=12$  кН,  
 $\angle ABD=45^\circ$ ,  
 $\angle ADB=60^\circ$ ,  
 $\angle BDC=45^\circ$ ,  
 $\angle BCD=45^\circ$ ,  
 $\angle CDE=30^\circ$ ,  
 $\angle CED=120^\circ$ .

**Задача 1.12.***Лебедев Алексей*

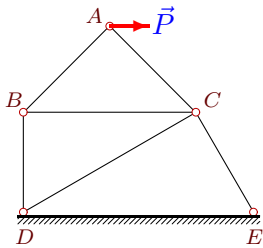
$P=16$  кН,  
 $\angle ACB=45^\circ$ ,  
 $\angle ABC=45^\circ$ ,  
 $\angle BDC=90^\circ$ ,  
 $\angle BCD=30^\circ$ ,  
 $\angle CDE=60^\circ$ ,  
 $\angle CED=60^\circ$ .

**Задача 1.13.***Лукьянов Степан*

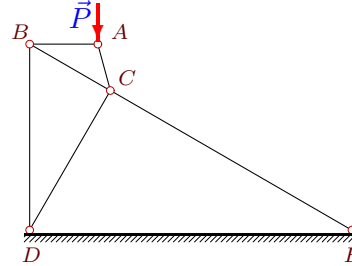
$P=13$  кН,  
 $\angle ACB=45^\circ$ ,  
 $\angle ABC=45^\circ$ ,  
 $\angle BDC=60^\circ$ ,  
 $\angle BCD=60^\circ$ ,  
 $\angle CDE=60^\circ$ ,  
 $\angle CED=90^\circ$ .

**Задача 1.14.**

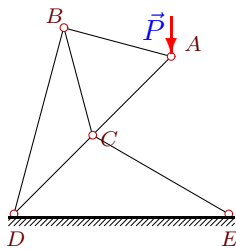
$P=2$  кН,  
 $\angle ACB=60^\circ$ ,  
 $\angle ABC=60^\circ$ ,  
 $\angle BDC=60^\circ$ ,  
 $\angle BCD=30^\circ$ ,  
 $\angle CDE=45^\circ$ ,  
 $\angle CED=45^\circ$ .

**Задача 1.15.**

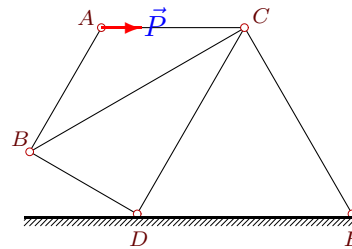
$P=12$  кН,  
 $\angle ACB=45^\circ$ ,  
 $\angle ABC=45^\circ$ ,  
 $\angle BDC=60^\circ$ ,  
 $\angle BCD=30^\circ$ ,  
 $\angle CDE=30^\circ$ ,  
 $\angle CED=60^\circ$ .

**Задача 1.16.**

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

**Задача 1.17.**

$P=13$  кН,  
 $\angle ACB=60^\circ$ ,  
 $\angle ABC=60^\circ$ ,  
 $\angle BDC=30^\circ$ ,  
 $\angle BCD=120^\circ$ ,  
 $\angle CDE=45^\circ$ ,  
 $\angle CED=30^\circ$ .

**Задача 1.18.**

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

**Плоская конструкция из 6 стержней**

	$S_{AB}$	$S_{AC}$	$S_{AD}$	$S_{BC}$	$S_{BD}$	$S_{CD}$	$S_{CE}$	
1	16.837	—	-11.906	8.419	-14.581	-14.581	8.419	Лисов Максим
2	19.053	-11.000	—	-33.000	19.053	44.456	-31.754	Николаев Олег
3	5.000	0.000	—	-4.330	2.500	8.660	-7.500	Пашенцев Дмитрий
4	-1.000	-0.518	—	1.414	-1.000	-1.155	0.577	Петрова Инга
5	-3.536	-3.536	—	6.830	-5.000	-5.774	2.887	Росляков Евгений
6	21.000	-21.000	—	-42.000	36.373	60.622	-48.497	Садовников Юрий
7	21.651	-12.500	—	-37.500	21.651	-50.000	-37.500	Солодовников Владимир
8	12.941	-25.000	—	-25.000	18.301	-25.000	-25.000	Тимошков Александр
9	8.000	—	-8.000	13.856	-16.000	3.713	12.423	Ершов Андрей
10	14.345	-11.713	—	-27.713	20.287	-25.569	-24.000	Апасьев Евгений
11	8.785	—	-10.759	6.212	-6.212	-12.000	8.785	Болошевич Антон
12	4.141	-15.455	—	-4.619	3.381	17.952	-19.904	Лебедев Алексей
13	-9.192	-9.192	—	10.253	-7.506	-7.506	0.000	Лукьянов Степан
14	1.633	-2.231	—	-0.816	1.414	0.707	-2.639	
15	8.485	-8.485	—	-6.000	6.000	7.392	-11.196	
16	-4.287	-16.564	—	4.950	-2.475	-11.713	-6.762	
17	10.614	-14.500	—	-21.229	18.385	-30.040	-19.033	
18	0.000	-30.000	—	0.000	0.000	30.000	-30.000	