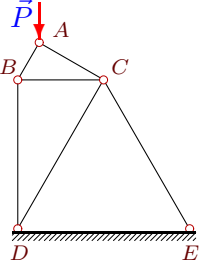
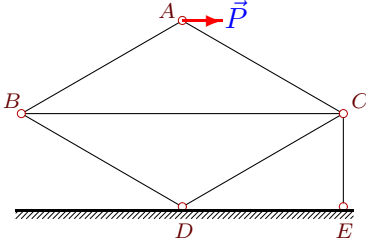
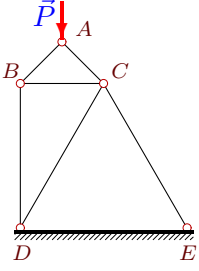
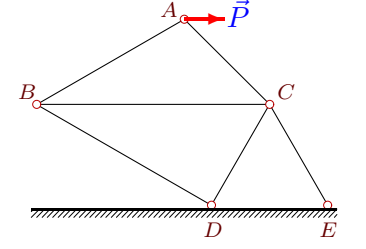
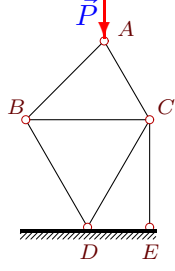
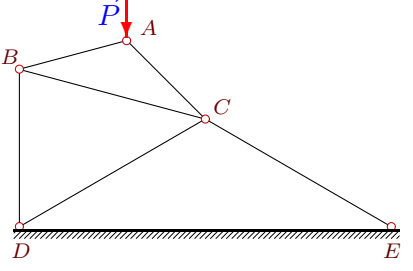
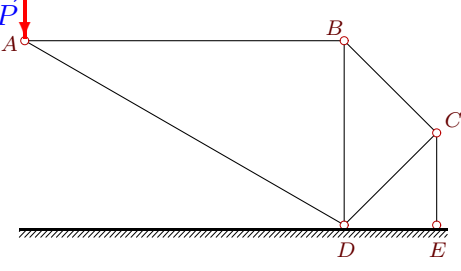
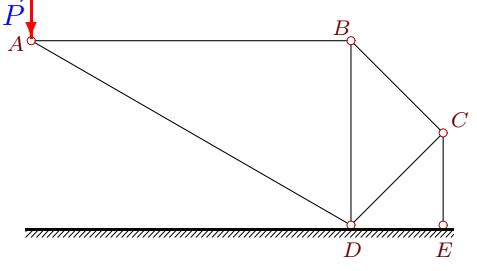
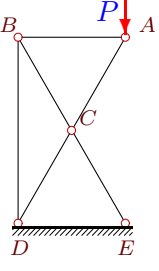
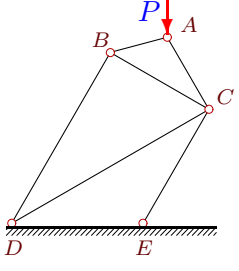
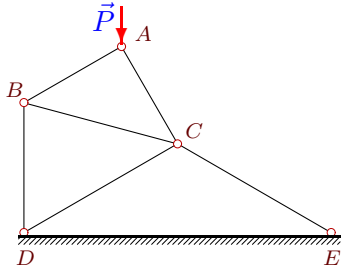


Плоская конструкция из 6 стержней

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

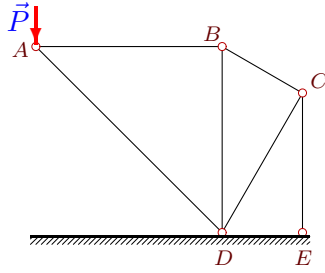
| | |
|---|--|
| <p>Задача S-1.1.</p>  <p style="text-align: right;"><i>Алиусманов Гейдар</i></p> <p style="text-align: right;"> $P=1$ кН, $\angle ACB=30^\circ$, $\angle ABC=60^\circ$, $\angle BDC=30^\circ$, $\angle BCD=60^\circ$, $\angle CDE=60^\circ$, $\angle CED=60^\circ$. </p> | <p>Задача S-1.2.</p>  <p style="text-align: right;"><i>Умаров Акбар</i></p> <p style="text-align: right;"> $P=8$ кН, $\angle ACB=30^\circ$, $\angle ABC=30^\circ$, $\angle BDC=120^\circ$, $\angle BCD=30^\circ$, $\angle CDE=30^\circ$, $\angle CED=90^\circ$. </p> |
| <p>Задача S-1.3. <i>Ратников Валерий Геннадьевич</i></p>  <p style="text-align: right;"> $P=9$ кН, $\angle ACB=45^\circ$, $\angle ABC=45^\circ$, $\angle BDC=30^\circ$, $\angle BCD=60^\circ$, $\angle CDE=60^\circ$, $\angle CED=60^\circ$. </p> | <p>Задача S-1.4. <i>Ланкин Алексей Анатольевич</i></p>  <p style="text-align: right;"> $P=28$ кН, $\angle ACB=45^\circ$, $\angle ABC=30^\circ$, $\angle BDC=90^\circ$, $\angle BCD=60^\circ$, $\angle CDE=60^\circ$, $\angle CED=60^\circ$. </p> |
| <p>Задача S-1.5. <i>Демьшев Филипп Александрович</i></p>  <p style="text-align: right;"> $P=29$ кН, $\angle ACB=60^\circ$, $\angle ABC=45^\circ$, $\angle BDC=60^\circ$, $\angle BCD=60^\circ$, $\angle CDE=60^\circ$, $\angle CED=90^\circ$. </p> | <p>Задача S-1.6.</p>  <p style="text-align: right;"> $P=16$ кН, $\angle ACB=30^\circ$, $\angle ABC=30^\circ$, $\angle BDC=60^\circ$, $\angle BCD=45^\circ$, $\angle CDE=30^\circ$, $\angle CED=30^\circ$. </p> |
| <p>Задача S-1.7.</p>  <p style="text-align: right;"> $P=26$ кН, $\angle ABD=90^\circ$, $\angle ADB=60^\circ$, $\angle BDC=45^\circ$, $\angle BCD=90^\circ$, $\angle CDE=45^\circ$, $\angle CED=90^\circ$. </p> | <p>Задача S-1.8.</p>  <p style="text-align: right;"> $P=9$ кН, $\angle ABD=90^\circ$, $\angle ADB=60^\circ$, $\angle BDC=45^\circ$, $\angle BCD=90^\circ$, $\angle CDE=45^\circ$, $\angle CED=90^\circ$. </p> |
| <p>Задача S-1.9.</p>  <p style="text-align: right;"> $P=31$ кН, $\angle ACB=60^\circ$, $\angle ABC=60^\circ$, $\angle BDC=30^\circ$, $\angle BCD=120^\circ$, $\angle CDE=60^\circ$, $\angle CED=60^\circ$. </p> | <p>Задача S-1.10.</p>  <p style="text-align: right;"> $P=14$ кН, $\angle ACB=30^\circ$, $\angle ABC=45^\circ$, $\angle BDC=30^\circ$, $\angle BCD=60^\circ$, $\angle CDE=30^\circ$, $\angle CED=120^\circ$. </p> |

Задача S-1.11.



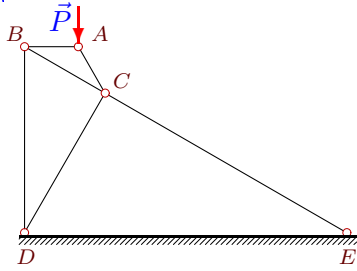
$P=15$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=45^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.12.



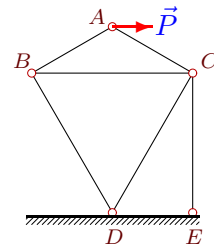
$P=5$ кН,
 $\angle ABD=90^\circ$,
 $\angle ADB=45^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.13.



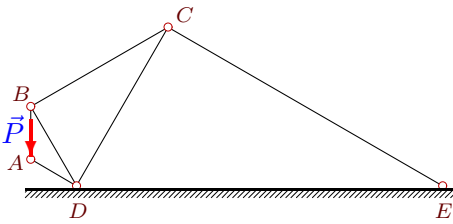
$P=29$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=90^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.14.



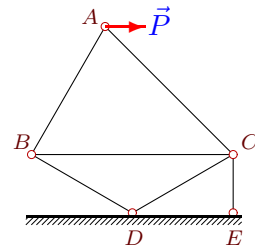
$P=7$ кН,
 $\angle ACB=30^\circ$,
 $\angle ABC=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=60^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.15.



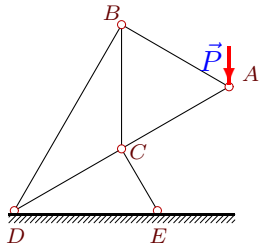
$P=26$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=30^\circ$.

Задача S-1.16.



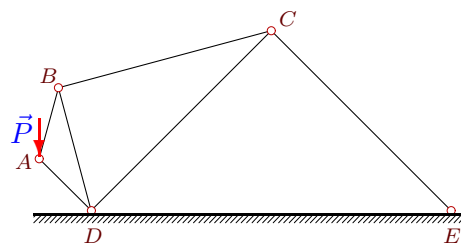
$P=26$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=120^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=90^\circ$.

Задача S-1.17.



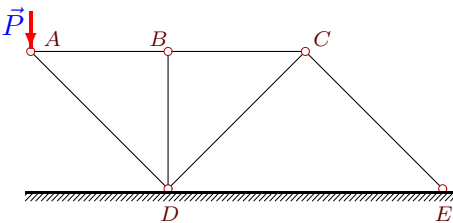
$P=33$ кН,
 $\angle ACB=60^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=30^\circ$,
 $\angle BCD=120^\circ$,
 $\angle CDE=30^\circ$,
 $\angle CED=60^\circ$.

Задача S-1.18.



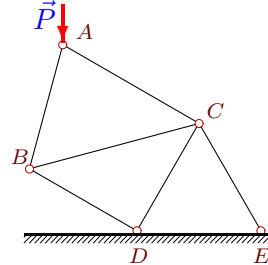
$P=29$ кН,
 $\angle ABD=30^\circ$,
 $\angle ADB=30^\circ$,
 $\angle BDC=60^\circ$,
 $\angle BCD=30^\circ$,
 $\angle CDE=45^\circ$,
 $\angle CED=45^\circ$.

Задача S-1.19.



$P=8$ 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-1.20.



$P=19$ кН,
 $\angle ACB=45^\circ$,
 $\angle ABC=60^\circ$,
 $\angle BDC=90^\circ$,
 $\angle BCD=45^\circ$,
 $\angle CDE=60^\circ$,
 $\angle CED=60^\circ$.

S-1

Ответы.
Плоская конструкция из 6 стержней

26-Feb-20

| | S_{AB} | S_{AC} | S_{AD} | S_{BC} | S_{BD} | S_{CD} | S_{CE} | |
|----|----------|----------|----------|----------|----------|----------|----------|------------------------------|
| 1 | -0.866 | -0.500 | — | 0.433 | -0.750 | -0.144 | -0.144 | Алиусманов Гейдар |
| 2 | 4.619 | -4.619 | — | -8.000 | 4.619 | 13.856 | -9.238 | Умаров Акбар |
| 3 | -6.364 | -6.364 | — | 4.500 | -4.500 | -2.598 | -2.598 | Ратников Валерий Геннадьевич |
| 4 | 20.497 | -14.494 | — | -35.503 | 20.497 | 39.834 | -51.668 | Ланкин Алексей Анатольевич |
| 5 | -15.012 | -21.229 | — | 16.743 | -12.257 | -12.257 | -7.771 | Демьшев Филипп Александрович |
| 6 | -13.064 | -17.846 | — | 13.064 | -6.762 | -9.238 | -9.238 | |
| 7 | 45.033 | — | -52.000 | 63.687 | -45.033 | -63.687 | 90.067 | |
| 8 | 15.588 | — | -18.000 | 22.045 | -15.588 | -22.045 | 31.177 | |
| 9 | 17.898 | -35.796 | — | -35.796 | 31.000 | -35.796 | -35.796 | |
| 10 | -7.247 | -14.000 | — | 5.124 | -5.124 | 14.000 | -19.124 | |
| 11 | -7.500 | -12.990 | — | 6.724 | -5.490 | -9.510 | -9.510 | |
| 12 | 5.000 | — | -7.071 | 5.774 | -2.887 | -10.000 | 11.547 | |
| 13 | -16.743 | -33.486 | — | 19.333 | -9.667 | -16.743 | -9.667 | |
| 14 | 4.041 | -4.041 | — | -4.667 | 2.333 | 16.333 | -16.166 | |
| 15 | 26.000 | — | 0.000 | 13.000 | -22.517 | -11.258 | 6.500 | |
| 16 | 19.033 | -23.311 | — | -38.067 | 32.967 | 62.989 | -47.978 | |
| 17 | 33.000 | -33.000 | — | -66.000 | 57.158 | -66.000 | -57.158 | |
| 18 | 23.678 | — | -8.667 | 11.839 | -20.506 | -10.253 | 5.920 | |
| 19 | 8.000 | — | -11.314 | 8.000 | 0.000 | -5.657 | 5.657 | |
| 20 | -17.035 | -5.091 | — | 23.270 | -20.863 | -23.015 | 13.121 | |

S-1 файл 1sod-AnsA