

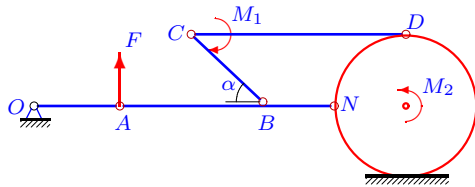
## Принцип возможных перемещений (2)

Механизм с идеальными стационарными связями находится в равновесии под действием силы  $F$  и моментов  $M_1, M_2$ . Длины звеньев даны в сантиметрах. Стержни, направление которых не указано, считать горизонтальными или вертикальными. Диск касается горизонтальной поверхности без проскальзывания. Найти величину  $F$ .

Курсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.— М.: ФИЗМАТЛИТ, 2008. — 384 с. (с.158.)

### Задача D-24.1.

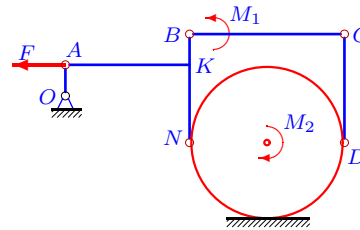
Абзианидзе Габриел



$$M_1 = 450, M_2 = 362, R = 5, OA = 6, \\ AB = 10, BN = 5, BC = 5\sqrt{2}, CD = 15, \alpha = 45^\circ$$

### Задача D-24.2.

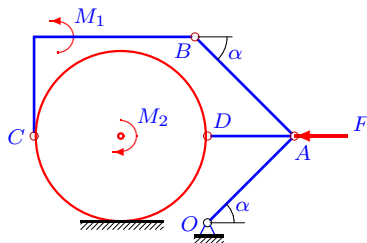
Авдонин Антон



$$M_1 = 74, M_2 = 134, R = 5, OA = 2, \\ AK = 8, BK = 2, KN = 5, CD = 7.$$

### Задача D-24.3.

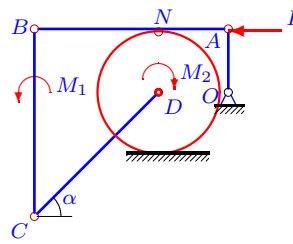
Белов Виктор



$$M_1 = 39, M_2 = 124, R = 7, OA = 7\sqrt{2}, \\ AB = 8\sqrt{2}, AD = 7, \alpha = 45^\circ.$$

### Задача D-24.4.

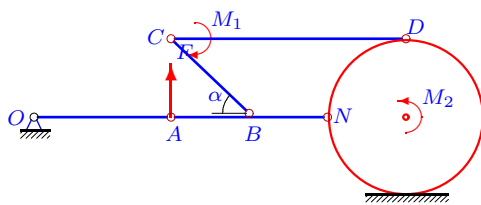
Болотина Татьяна



$$M_1 = 141, M_2 = 143, R = 8, OA = 8, \\ CD = 16\sqrt{2}, AN = 9, AB = 25, \alpha = 45^\circ.$$

### Задача D-24.5.

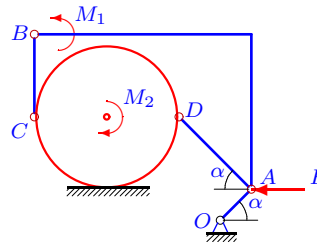
Бубнова Ольга



$$M_1 = 840, M_2 = 511, R = 4, OA = 7, \\ AB = 4, BN = 4, BC = 4\sqrt{2}, CD = 12, \alpha = 45^\circ$$

### Задача D-24.6.

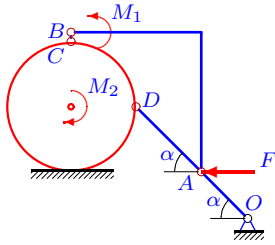
Глушенков Павел



$$M_1 = 408, M_2 = 496, R = 7, OA = 3\sqrt{2}, \\ AD = 7\sqrt{2}, BC = 8, \alpha = 45^\circ.$$

**Задача D-24.7.**

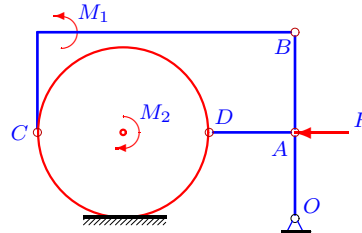
*Горьков Ярослав*



$M_1 = 140, M_2 = 425, R = 7, OA = 5\sqrt{2},$   
 $AD = 7\sqrt{2}, BC = 1, \alpha = 45^\circ.$

**Задача D-24.8.**

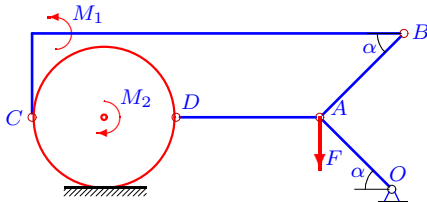
*Комарова Анастасия*



$M_1 = 51, M_2 = 89, R = 6, OA = 6,$   
 $AB = 7, AD = 6.$

**Задача D-24.9.**

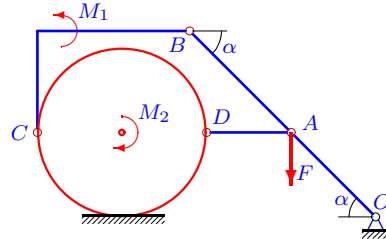
*Конева Наталья*



$M_1 = 23, M_2 = 30, R = 6, OA = 6\sqrt{2},$   
 $AB = 7\sqrt{2}, AD = 12, \alpha = 45^\circ.$

**Задача D-24.10.**

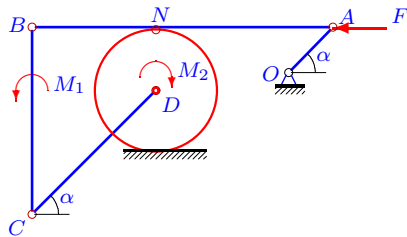
*Любимов Артур*



$M_1 = 19, M_2 = 20, R = 5, OA = 5\sqrt{2},$   
 $AB = 6\sqrt{2}, AD = 5, \alpha = 45^\circ.$

**Задача D-24.11.**

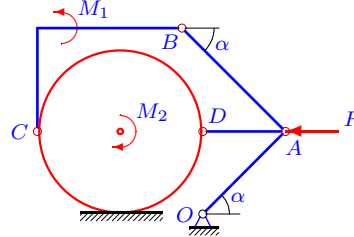
*Мартынова Мария*



$M_1 = 270, M_2 = 412, R = 7, OA = 5\sqrt{2},$   
 $CD = 14\sqrt{2}, AN = 20, AB = 34, \alpha = 45^\circ.$

**Задача D-24.12.**

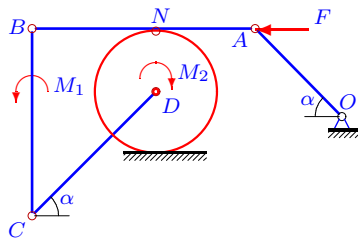
*Пилягина Любовь*



$M_1 = 21, M_2 = 34, R = 4, OA = 4\sqrt{2},$   
 $AB = 5\sqrt{2}, AD = 4, \alpha = 45^\circ.$

**Задача D-24.13.**

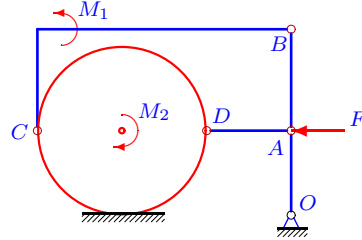
*Понамарева Мария*



$M_1 = 532, M_2 = 574, R = 5, OA = 7\sqrt{2},$   
 $CD = 10\sqrt{2}, AN = 8, AB = 18, \alpha = 45^\circ.$

**Задача D-24.14.**

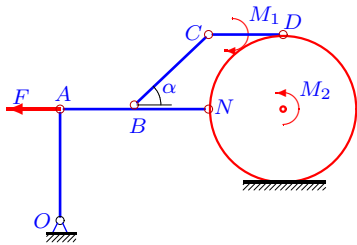
*Соколова Елена*



$M_1 = 42, M_2 = 59, R = 5, OA = 5,$   
 $AB = 6, AD = 5.$

**Задача D-24.15.**

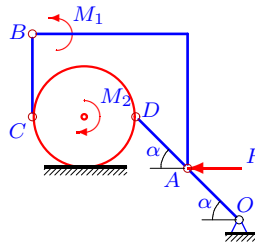
Федоренкова Ольга



$M_1 = 90, M_2 = 75, R = 4, OA = 6,$   
 $AB = 4, BN = 4, BC = 4\sqrt{2}, CD = 4, \alpha = 45^\circ$

**Задача D-24.16.**

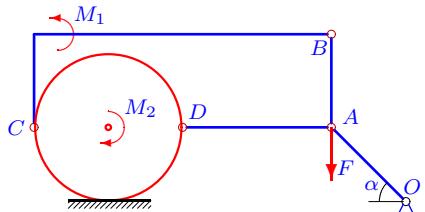
Чыонг Тхи Лан Нхи



$M_1 = 300, M_2 = 244, R = 5, OA = 5\sqrt{2},$   
 $AD = 5\sqrt{2}, BC = 8, \alpha = 45^\circ.$

**Задача D-24.17.**

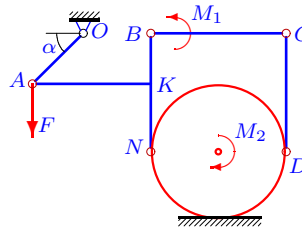
Шипаева Алена



$M_1 = 15, M_2 = 12, R = 4, OA = 4\sqrt{2},$   
 $AB = 5, AD = 8, \alpha = 45^\circ.$

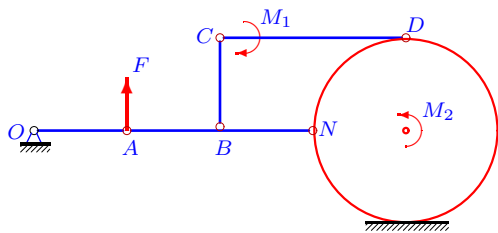
**Задача D-24.18.**

Ямалетдинова Эльвира



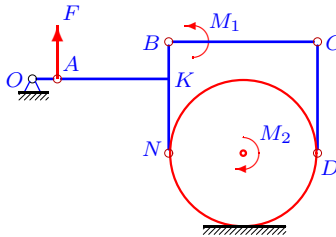
$M_1 = 35, M_2 = 59, R = 4, OA = 3\sqrt{2},$   
 $AK = 7, BK = 3, KN = 4, CD = 7, \alpha = 45^\circ.$

**Задача D-24.19.**



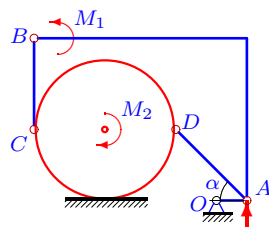
$M_1 = 96, M_2 = 121, R = 6, OA = 6,$   
 $AB = 6, BN = BC = 6, CD = 12.$

**Задача D-24.20.**



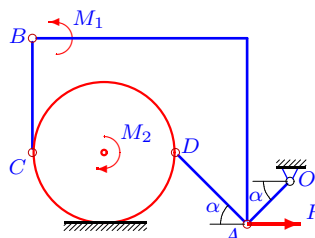
$M_1 = 22, M_2 = 34, R = 6, OA = 2,$   
 $AK = 9, BK = 3, KN = 6, CD = 9.$

**Задача D-24.21.**



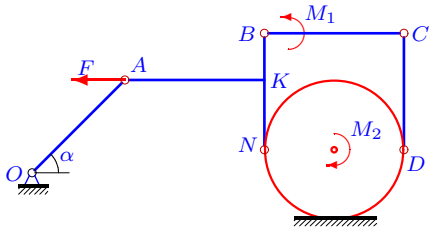
$M_1 = 165, M_2 = 249, R = 7, OA = 3,$   
 $AD = 7\sqrt{2}, BC = 9, \alpha = 45^\circ.$

**Задача D-24.22.**



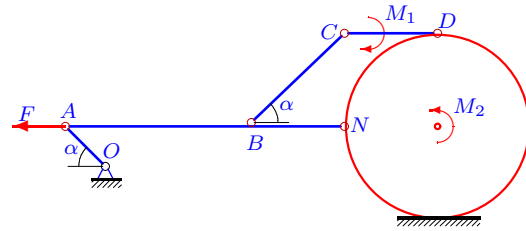
$M_1 = 252, M_2 = 248, R = 5, OA = 3\sqrt{2},$   
 $AD = 5\sqrt{2}, BC = 8, \alpha = 45^\circ.$

**Задача D-24.23.**



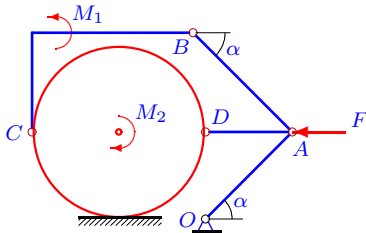
$M_1 = 48, M_2 = 24, R = 3, OA = 4\sqrt{2},$   
 $AK = 6, BK = 2, KN = 3, CD = 5, \alpha = 45^\circ.$

**Задача D-24.24.**



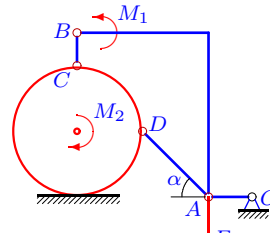
$M_1 = 39, M_2 = 126, R = 7, OA = 3\sqrt{2},$   
 $AB = 14, BN = 7, BC = 7\sqrt{2}, CD = 7, \alpha = 45^\circ$

**Задача D-24.25.**



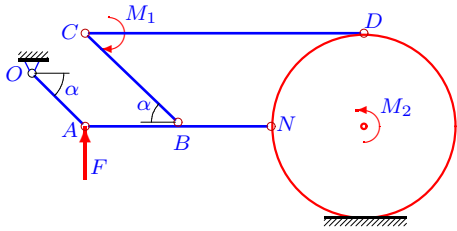
$M_1 = 39, M_2 = 124, R = 7, OA = 7\sqrt{2},$   
 $AB = 8\sqrt{2}, AD = 7, \alpha = 45^\circ.$

**Задача D-24.26.**



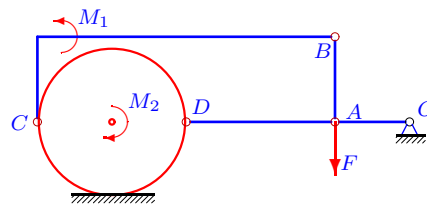
$M_1 = 49, M_2 = 61, R = 6, OA = 4,$   
 $AD = 6\sqrt{2}, BC = 3, \alpha = 45^\circ.$

**Задача D-24.27.**



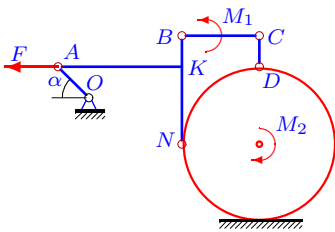
$M_1 = 264, M_2 = 512, R = 7, OA = 4\sqrt{2},$   
 $AB = 7, BN = 7, BC = 7\sqrt{2}, CD = 21, \alpha = 45^\circ$

**Задача D-24.28.**



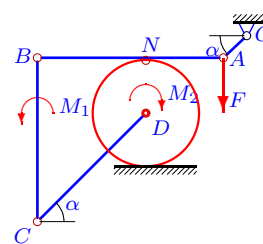
$M_1 = 140, M_2 = 169, R = 7, OA = 7,$   
 $AB = 8, AD = 14.$

**Задача D-24.29.**



$M_1 = 38, M_2 = 48, R = 5, OA = 2\sqrt{2},$   
 $AK = 8, BK = 2, KN = 5, CD = 2, \alpha = 45^\circ.$

**Задача D-24.30.**



$M_1 = 225, M_2 = 229, R = 7, OA = 3\sqrt{2},$   
 $CD = 14\sqrt{2}, AN = 10, AB = 24, \alpha = 45^\circ.$