

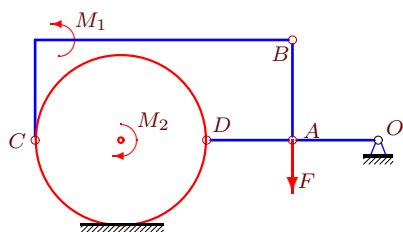
## Принцип возможных перемещений (2)

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.

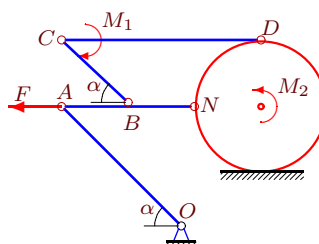
*Алиусманов Гейдар*



$$M_1 = 90, M_2 = 91, R = 6, OA = 6, \\ AB = 7, AD = 6.$$

### Задача D-24.2.

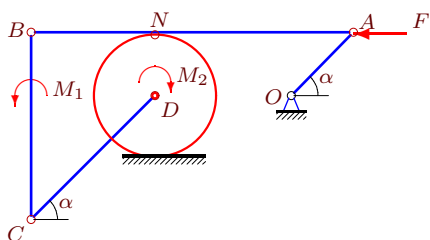
*Умаров Акбар*



$$M_1 = 216, M_2 = 174, R = 5, OA = 9\sqrt{2}, \\ AB = 5, BN = 5, BC = 5\sqrt{2}, CD = 15, \alpha = 45^\circ$$

### Задача D-24.3.

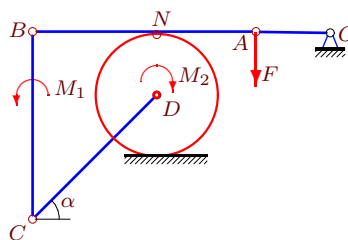
*Ратников Валерий*



$$M_1 = 472, M_2 = 474, R = 5, OA = 5\sqrt{2}, \\ CD = 10\sqrt{2}, AN = 16, AB = 26, \alpha = 45^\circ.$$

### Задача D-24.4.

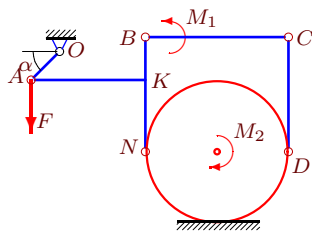
*Ланкин Алексей*



$$M_1 = 456, M_2 = 458, R = 5, OA = 6, \\ CD = 10\sqrt{2}, AN = 8, AB = 18, \alpha = 45^\circ.$$

### Задача D-24.5.

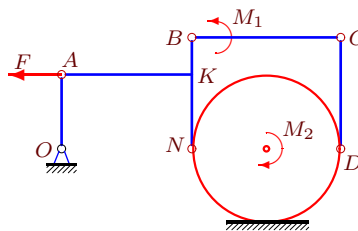
*Демьяшев Филипп*



$$M_1 = 116, M_2 = 176, R = 5, OA = 2\sqrt{2}, \\ AK = 8, BK = 3, KN = 5, CD = 8, \alpha = 45^\circ.$$

### Задача D-24.6.

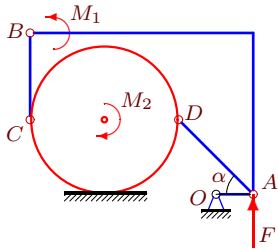
*Любуцкий Алексей*



$$M_1 = M_2 = 41, R = 4, OA = 4, \\ AK = 7, BK = 2, KN = 4, CD = 6.$$

**Задача D-24.7.**

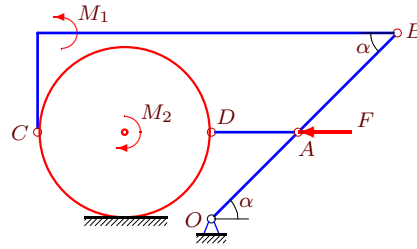
*Сабиров Сабир*



$M_1 = 47, M_2 = 59, R = 6, OA = 3,$   
 $AD = 6\sqrt{2}, BC = 7, \alpha = 45^\circ.$

**Задача D-24.8.**

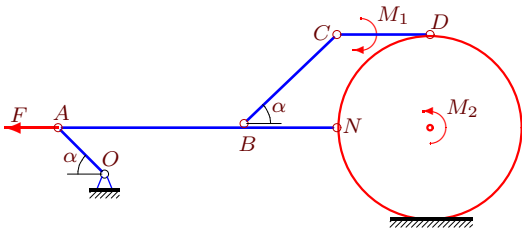
*Гурьянова Ксения*



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

**Задача D-24.9.**

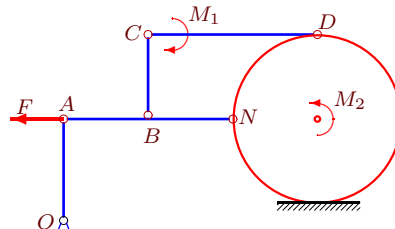
*Горелова Валерия*



$M_1 = 11, M_2 = 30, R = 6, OA = 3\sqrt{2},$   
 $AB = 12, BN = 6, BC = 6\sqrt{2}, CD = 6, \alpha = 45^\circ$

**Задача D-24.10.**

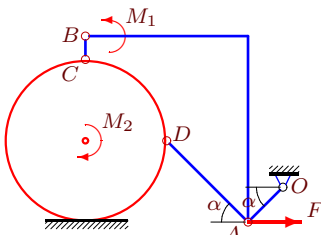
*Минина Дарья*



$M_1 = 288, M_2 = 237, R = 5, OA = 6,$   
 $AB = 5, BN = BC = 5, CD = 10.$

**Задача D-24.11.**

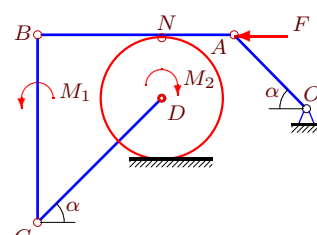
*Юриков Максим*



$M_1 = 174, M_2 = 255, R = 7, OA = 3\sqrt{2},$   
 $AD = 7\sqrt{2}, BC = 2, \alpha = 45^\circ.$

**Задача D-24.12.**

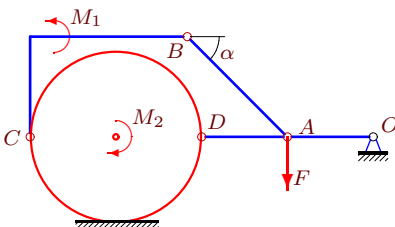
*Сабиров Сырым*



$M_1 = 483, M_2 = 269, R = 6, OA = 7\sqrt{2},$   
 $CD = 12\sqrt{2}, AN = 7, AB = 19, \alpha = 45^\circ.$

**Задача D-24.13.**

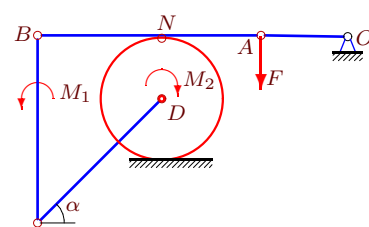
*Захаров Павел*



$M_1 = 90, M_2 = 91, R = 6, OA = 6,$   
 $AB = 7\sqrt{2}, AD = 6, \alpha = 45^\circ.$

**Задача D-24.14.**

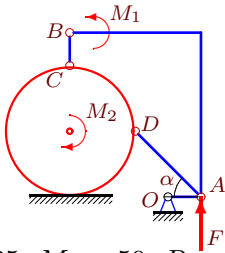
*Чулков Данила*



$M_1 = 504, M_2 = 518, R = 5, OA = 7,$   
 $CD = 10\sqrt{2}, AN = 8, AB = 18, \alpha = 45^\circ.$

**Задача D-24.15.**

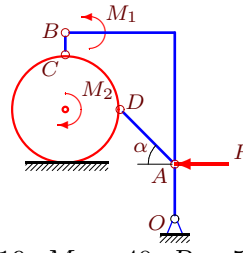
*Грошовик Сергей*



$M_1 = 35, M_2 = 59, R = 6, OA = 3,$   
 $AD = 6\sqrt{2}, BC = 3, \alpha = 45^\circ.$

**Задача D-24.16.**

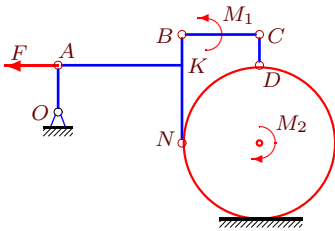
*Мясников Сергей*



$M_1 = 19, M_2 = 40, R = 5, OA = 5,$   
 $AD = 5\sqrt{2}, BC = 2, \alpha = 45^\circ.$

**Задача D-24.17.**

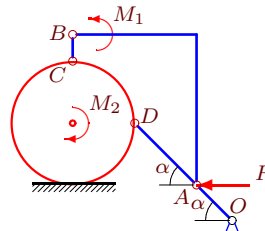
*Титимов Диас*



$M_1 = 44, M_2 = 134, R = 5, OA = 3,$   
 $AK = 8, BK = 2, KN = 5, CD = 2.$

**Задача D-24.18.**

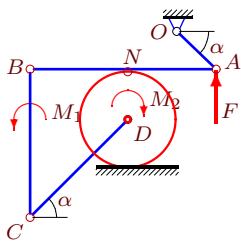
*Окладников Григорий*



$M_1 = 56, M_2 = 170, R = 7, OA = 4\sqrt{2},$   
 $AD = 7\sqrt{2}, BC = 3, \alpha = 45^\circ.$

**Задача D-24.19.**

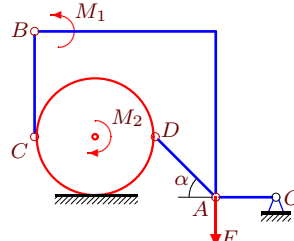
*Ибрагимов Ибрагим*



$M_1 = 54, M_2 = 518, R = 5, OA = 4\sqrt{2},$   
 $CD = 10\sqrt{2}, AN = 9, AB = 19, \alpha = 45^\circ.$

**Задача D-24.20.**

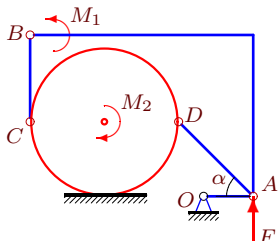
*Камариден Али*



$M_1 = 41, M_2 = 25, R = 4, OA = 4,$   
 $AD = 4\sqrt{2}, BC = 7, \alpha = 45^\circ.$

**Задача D-24.21.**

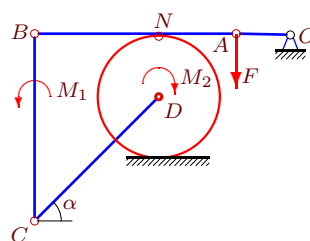
*Душеин Александр*



$M_1 = 35, M_2 = 59, R = 6, OA = 4,$   
 $AD = 6\sqrt{2}, BC = 7, \alpha = 45^\circ.$

**Задача D-24.22.**

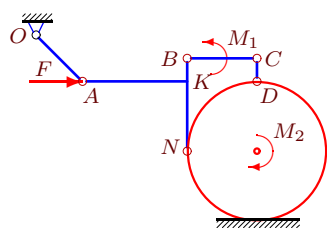
*Болатулы Сырым*



$M_1 = 210, M_2 = 224, R = 8, OA = 7,$   
 $CD = 16\sqrt{2}, AN = 10, AB = 26, \alpha = 45^\circ.$

### Задача D-24.23.

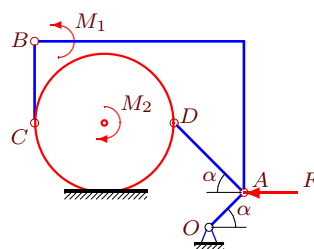
Богданов Егор



$$M_1 = 62, M_2 = 74, R = 6, OA = 4\sqrt{2},$$

$$AK = 9, BK = 2, KN = 6, CD = 2, \alpha = 45^\circ.$$

### Задача D-24.24.



$$M_1 = 357, M_2 = 616, R = 6, OA = 3\sqrt{2},$$

$$AD = 6\sqrt{2}, BC = 7, \alpha = 45^\circ.$$