

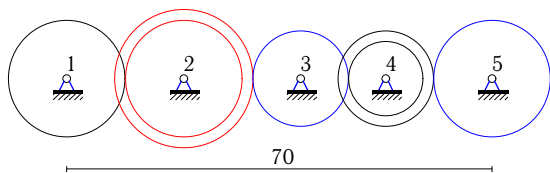
Передача вращений

Оси колес фрикционной передачи расположены на одной прямой. Даны радиусы колес 2-4, расстояние между крайними осями (см) и угловый скорости ведущего колеса 1 и ведомого 5 (с^{-1}). Найти радиусы колес 1 и 5.

Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.: ФИЗМАТЛИТ, 2008. — 384 с. (с.149.)

Задача К-6.1.

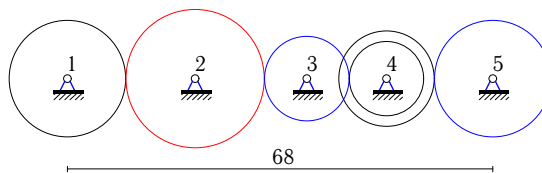
5



$$r_2 = 11, R_2 = 13, r_3 = 9, r_4 = 7, R_4 = 9, \\ \omega_1 = 539, \omega_5 = 585.$$

Задача К-6.2.

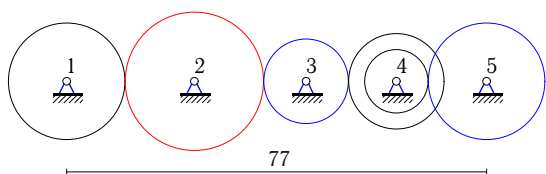
5



$$R_2 = 13, r_3 = 8, r_4 = 7, R_4 = 9, \\ \omega_1 = 91, \omega_5 = 117.$$

Задача К-6.3.

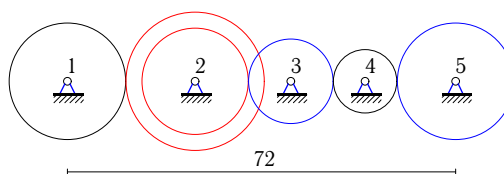
5



$$R_2 = 13, r_3 = 8, r_4 = 6, R_4 = 9, \\ \omega_1 = 39, \omega_5 = 26.$$

Задача К-6.4.

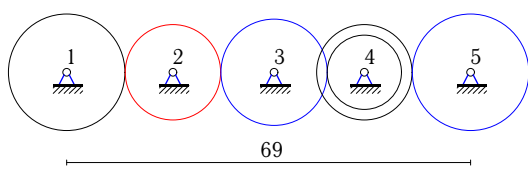
5



$$r_2 = 10, R_2 = 13, r_3 = 8, r_4 = 6, \\ \omega_1 = 13, \omega_5 = 11.$$

Задача К-6.5.

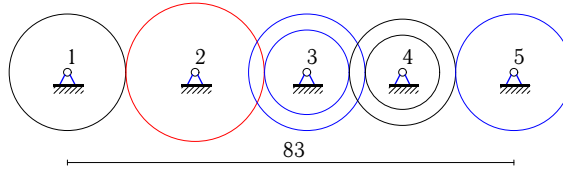
5



$$r_2 = 9, R_3 = 10, r_4 = 7, R_4 = 9, \\ \omega_1 = 28, \omega_5 = 99.$$

Задача К-6.6.

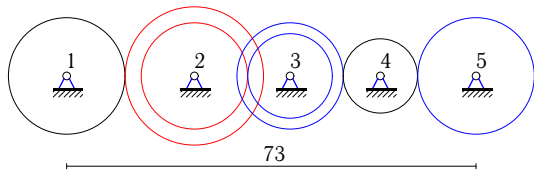
5



$$R_2 = 13, r_3 = 8, R_3 = 11, r_4 = 7, R_4 = 10, \\ \omega_1 = 273, \omega_5 = 715.$$

Задача К-6.7.

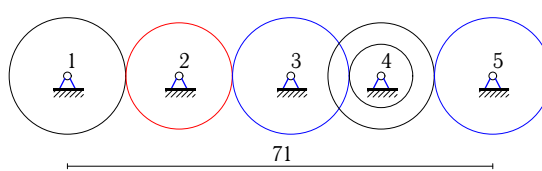
5



$$r_2 = 10, R_2 = 13, r_3 = 8, R_3 = 10, r_4 = 7, \\ \omega_1 = 104, \omega_5 = 125.$$

Задача К-6.8.

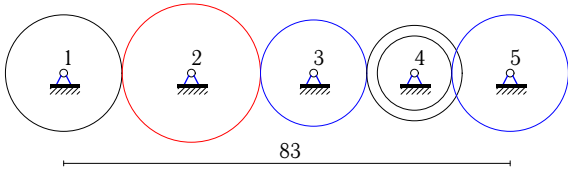
5



$$r_2 = 10, R_3 = 11, r_4 = 6, R_4 = 10, \\ \omega_1 = 3, \omega_5 = 8.$$

Задача К-6.9.

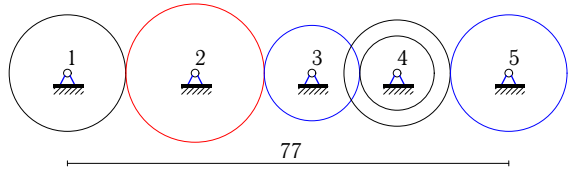
5



$$R_2 = 13, R_3 = 10, r_4 = 7, R_4 = 9, \\ \omega_1 = 1170, \omega_5 = 1001.$$

Задача К-6.10.

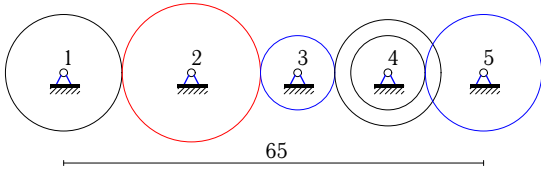
5



$$R_2 = 13, r_3 = 9, r_4 = 7, R_4 = 10, \\ \omega_1 = 91, \omega_5 = 390.$$

Задача К-6.11.

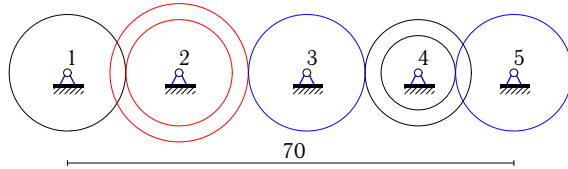
5



$$R_2 = 13, r_3 = 7, r_4 = 7, R_4 = 10, \\ \omega_1 = 130, \omega_5 = 91.$$

Задача К-6.12.

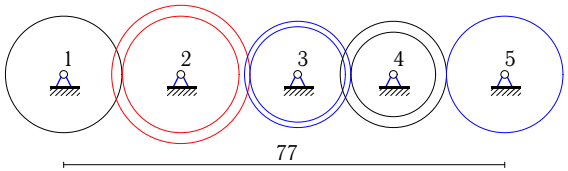
5



$$r_2 = 10, R_2 = 13, R_3 = 11, r_4 = 7, R_4 = 10, \\ \omega_1 = 100, \omega_5 = 91.$$

Задача К-6.13.

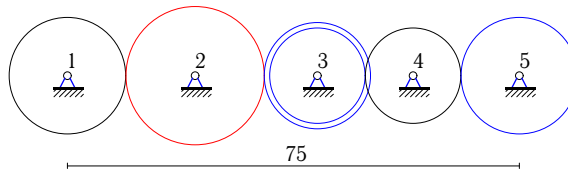
5



$$r_2 = 11, R_2 = 13, r_3 = 9, R_3 = 10, r_4 = 8, \\ R_4 = 10, \\ \omega_1 = 154, \omega_5 = 325.$$

Задача К-6.14.

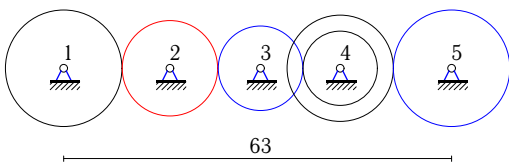
5



$$R_2 = 13, r_3 = 9, R_3 = 10, R_4 = 9, \\ \omega_1 = 650, \omega_5 = 819.$$

Задача К-6.15.

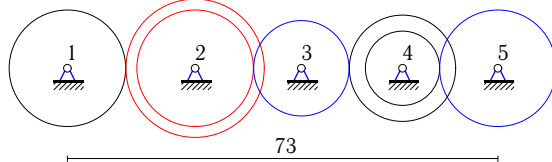
5



$$r_2 = 9, r_3 = 8, r_4 = 7, R_4 = 10, \\ \omega_1 = 49, \omega_5 = 50.$$

Задача К-6.16.

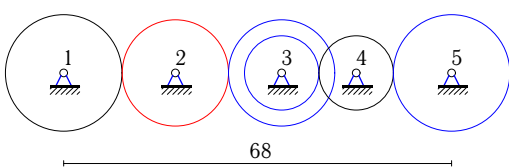
5



$$r_2 = 11, R_2 = 13, r_3 = 9, r_4 = 7, R_4 = 10, \\ \omega_1 = 520, \omega_5 = 231.$$

Задача К-6.17.

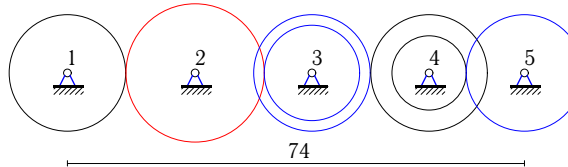
5



$$r_2 = 10, r_3 = 7, R_3 = 10, r_4 = 7, \\ \omega_1 = 25, \omega_5 = 42.$$

Задача К-6.18.

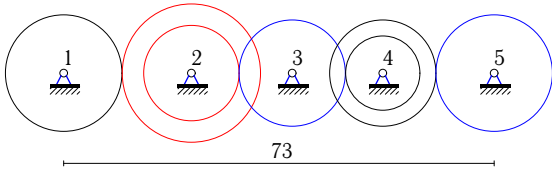
5



$$R_2 = 13, r_3 = 9, R_3 = 11, r_4 = 7, R_4 = 11, \\ \omega_1 = 351, \omega_5 = 182.$$

Задача К-6.19.

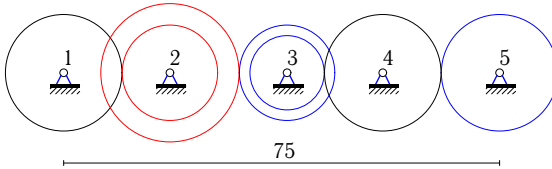
5



$$r_2 = 9, R_2 = 13, R_3 = 10, r_4 = 7, R_4 = 10, \\ \omega_1 = 91, \omega_5 = 162.$$

Задача К-6.21.

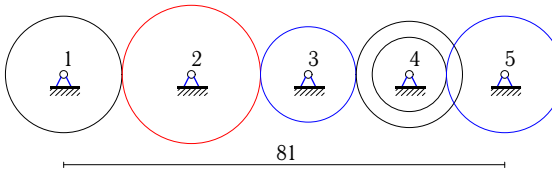
5



$$r_2 = 9, R_2 = 13, r_3 = 7, R_3 = 9, R_4 = 11, \\ \omega_1 = 81, \omega_5 = 364.$$

Задача К-6.23.

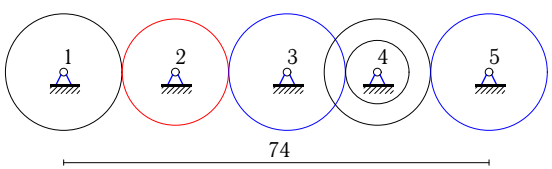
5



$$R_2 = 13, R_3 = 9, r_4 = 7, R_4 = 10, \\ \omega_1 = 130, \omega_5 = 91.$$

Задача К-6.25.

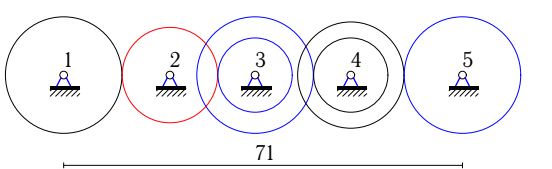
5



$$r_2 = 10, R_3 = 11, r_4 = 6, R_4 = 10, \\ \omega_1 = 27, \omega_5 = 35.$$

Задача К-6.27.

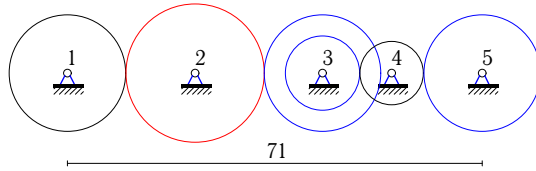
5



$$r_2 = 9, r_3 = 7, R_3 = 11, r_4 = 7, R_4 = 10, \\ \omega_1 = 49, \omega_5 = 110.$$

Задача К-6.20.

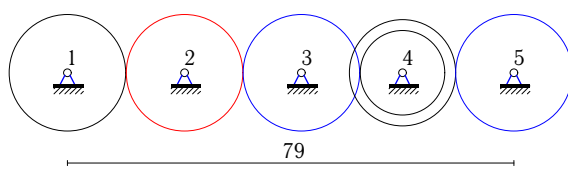
5



$$R_2 = 13, r_3 = 7, R_3 = 11, r_4 = 6, \\ \omega_1 = 286, \omega_5 = 273.$$

Задача К-6.22.

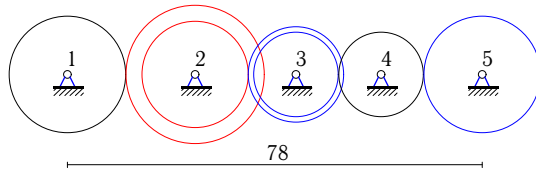
5



$$r_2 = 11, R_3 = 11, r_4 = 8, R_4 = 10, \\ \omega_1 = 9, \omega_5 = 10.$$

Задача К-6.24.

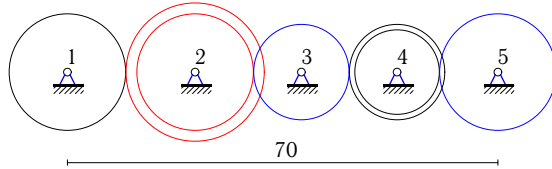
5



$$r_2 = 10, R_2 = 13, r_3 = 8, R_3 = 9, r_4 = 8, \\ \omega_1 = 39, \omega_5 = 32.$$

Задача К-6.26.

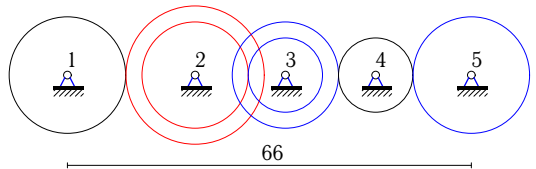
5



$$r_2 = 11, R_2 = 13, R_3 = 9, r_4 = 8, R_4 = 9, \\ \omega_1 = 819, \omega_5 = 352.$$

Задача К-6.28.

5



$$r_2 = 10, R_2 = 13, r_3 = 7, R_3 = 10, r_4 = 7, \\ \omega_1 = 91, \omega_5 = 200.$$

К-6 Ответы.
Передача вращений

21.04.2013

№	ω_2	ω_3	ω_4	R_1	R_5
1	245.000	353.889	455.000	5	7
2	35.000	56.875	65.000	5	5
3	30.000	48.750	43.333	10	10
4	11.000	13.750	18.333	11	10
5	34.222	30.800	44.000	11	4
6	252.000	409.500	643.500	12	9
7	80.000	100.000	142.857	10	8
8	2.400	2.182	4.000	8	5
9	990.000	1287.000	1430.000	11	10
10	84.000	121.333	156.000	12	4
11	40.000	74.286	52.000	4	4
12	40.000	47.273	52.000	4	4
13	126.000	182.000	227.500	9	7
14	350.000	455.000	455.000	7	5
15	27.222	30.625	35.000	5	7
16	240.000	293.333	264.000	6	8
17	30.000	30.000	30.000	12	5
18	108.000	156.000	156.000	4	6
19	63.000	56.700	81.000	9	5
20	198.000	234.000	273.000	9	6
21	108.000	156.000	99.273	12	3
22	6.545	6.545	9.000	8	9
23	100.000	144.444	130.000	10	10
24	36.000	40.000	40.000	12	10
25	18.900	17.182	31.500	7	9
26	252.000	308.000	308.000	4	7
27	49.000	63.000	99.000	9	9
28	56.000	80.000	114.286	8	4

К-6 файл обк5А