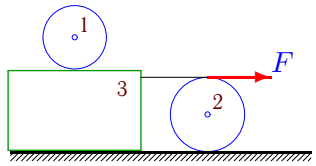
Уравнение Лагранжа 2-го рода

Механическая система из двух однородных цилиндров 1 и 2 и бруска 3 с идеальными стационарными связями имеет две степени свободы и движется под действием силы F. Трением пренебречь. Массы даны в килограммах, сила — в ньютонах. Найти ускорение бруска, скользящего по гладкой поверхности.

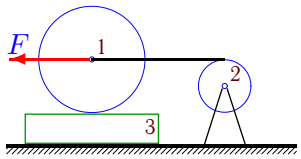
Кирсанов М.Н. **Решебник. Теоретическая механика**/Под ред. А. И. Кириллова.– М.:ФИЗМАТЛИТ, 2008.– 384 с. (с.300.)

Задача 14.1.



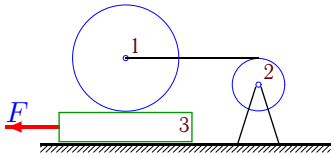
$F = 49,\ m_1 = 2,\ m_2 = 1,\ m_3 = 1.$

Задача 14.2.



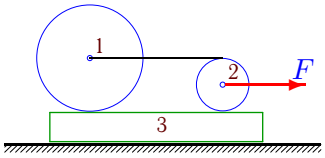
$F = 19,\ m_1 = 2,\ m_2 = 1,\ m_3 = 2.$

Задача 14.3.



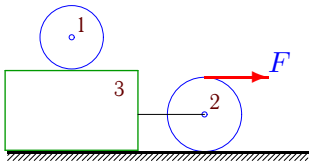
$F = 81,\ m_1 = 3,\ m_2 = 1,\ m_3 = 3.$

Задача 14.4.



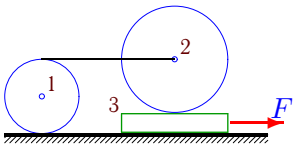
$F = 133,\ m_1 = 2,\ m_2 = 3,\ m_3 = 2.$

Задача 14.5.



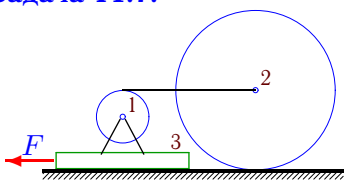
$F = 19,\ m_1 = 3,\ m_2 = 3,\ m_3 = 4.$

Задача 14.6.



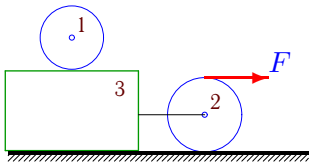
$F = 26,\ m_1 = 2,\ m_2 = 2,\ m_3 = 1.$

Задача 14.7.



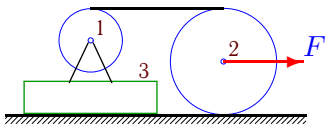
$F = 69,\ m_1 = 1,\ m_2 = 3,\ m_3 = 2.$

Задача 14.8.



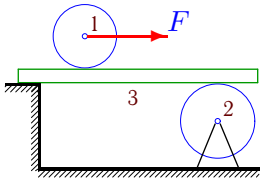
$F = 13,\ m_1 = 3,\ m_2 = 3,\ m_3 = 1.$

Задача 14.9.



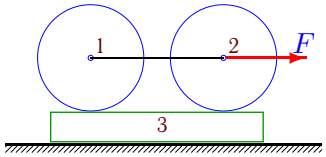
$F = 19,\ m_1 = 2,\ m_2 = 2,\ m_3 = 3.$

Задача 14.10.



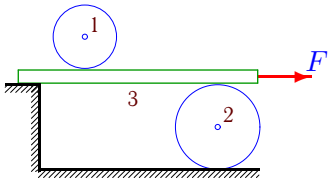
$F = 23,\ m_1 = 1,\ m_2 = 3,\ m_3 = 2.$

Задача 14.11. 4



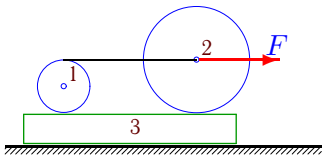
$F = 8,\ m_1 = 3,\ m_2 = 2,\ m_3 = 1.$

Задача 14.12. 4



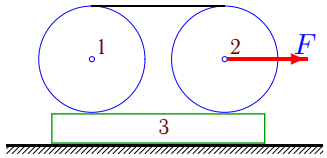
$F = 65,\ m_1 = 1,\ m_2 = 1,\ m_3 = 2.$

Задача 14.13. 4



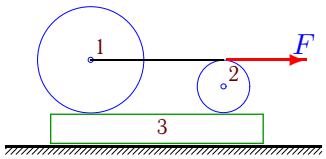
$F = 20,\ m_1 = 3,\ m_2 = 2,\ m_3 = 1.$

Задача 14.14. 4



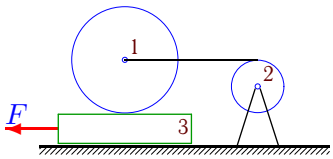
$F = 14,\ m_1 = 3,\ m_2 = 2,\ m_3 = 3.$

Задача 14.15. 4



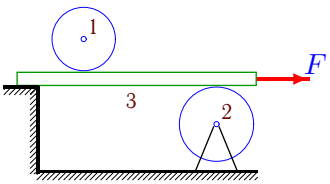
$F = 175,\ m_1 = 3,\ m_2 = 1,\ m_3 = 3.$

Задача 14.16. 4



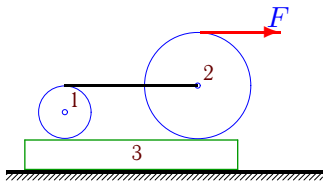
$F = 81,\ m_1 = 3,\ m_2 = 1,\ m_3 = 3.$

Задача 14.17. 4



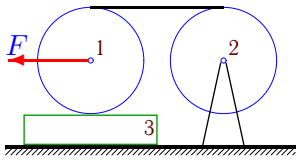
$F = 7,\ m_1 = 3,\ m_2 = 3,\ m_3 = 1.$

Задача 14.18. 4



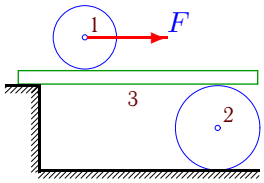
$F = 29,\ m_1 = 2,\ m_2 = 1,\ m_3 = 2.$

Задача 14.19. 4



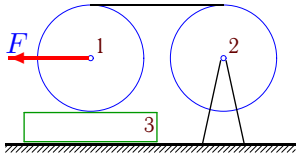
$F = 53,\ m_1 = 3,\ m_2 = 1,\ m_3 = 1.$

Задача 14.20. 4



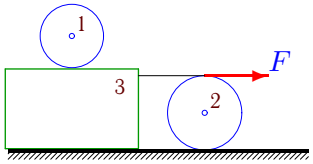
$F = 89,\ m_1 = 1,\ m_2 = 1,\ m_3 = 3.$

Задача 14.21. 4



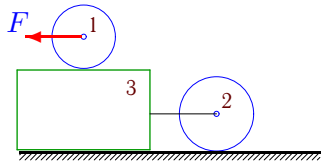
$F = 79,\ m_1 = 3,\ m_2 = 1,\ m_3 = 2.$

Задача 14.22. 4



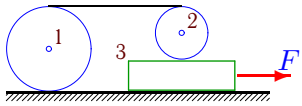
$F = 11,\ m_1 = 3,\ m_2 = 2,\ m_3 = 1.$

Задача 14.23. 4



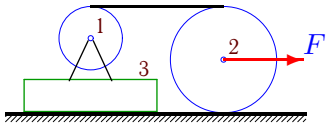
$F = 18$, $m_1 = 3$, $m_2 = 2$, $m_3 = 2$.

Задача 14.24. 4



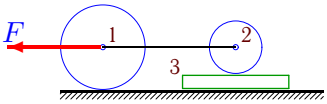
$F = 161$, $m_1 = 1$, $m_2 = 1$, $m_3 = 3$.

Задача 14.25. 4



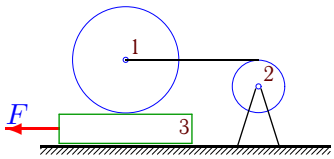
$F = 107$, $m_1 = 3$, $m_2 = 3$, $m_3 = 4$.

Задача 14.26. 4



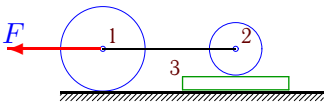
$F = 17$, $m_1 = 1$, $m_2 = 2$, $m_3 = 3$.

Задача 14.27. 4



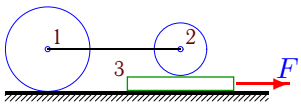
$F = 12$, $m_1 = 2$, $m_2 = 1$, $m_3 = 1$.

Задача 14.28. 4



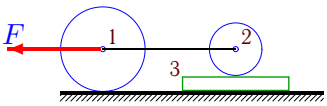
$F = 31$, $m_1 = 2$, $m_2 = 1$, $m_3 = 3$.

Задача 14.29. 4



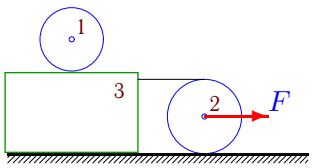
$F = 17$, $m_1 = 1$, $m_2 = 3$, $m_3 = 1$.

Задача 14.30. 4



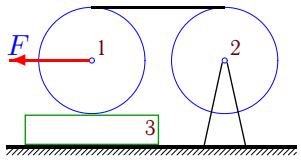
$F = 11$, $m_1 = 2$, $m_2 = 2$, $m_3 = 1$.

Задача 14.31. 4



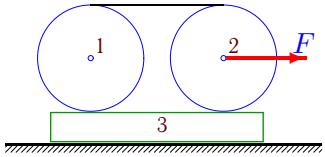
$F = 115$, $m_1 = 2$, $m_2 = 3$, $m_3 = 3$.

Задача 14.32. 4



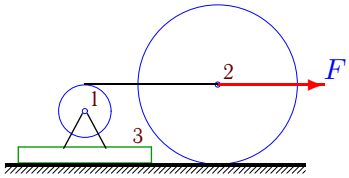
$F = 79$, $m_1 = 3$, $m_2 = 1$, $m_3 = 2$.

Задача 14.33. 4



$F = 8$, $m_1 = 1$, $m_2 = 1$, $m_3 = 2$.

Задача 14.34. 4



$F = 49$, $m_1 = 1$, $m_2 = 3$, $m_3 = 1$.

14.4

Уравнение Лагранжа 2-го рода

№	a
1	24
2	-2
3	-20
4	19
5	4
6	15
7	-20
8	4
9	1
10	2
11	1
12	24
13	1
14	1
15	11
16	-20
17	2
18	-7
19	-10
20	8
21	-10
22	4
23	-1
24	48
25	4
26	-1
27	-7
28	-1
29	8
30	-1
31	12
32	-10
33	1
34	2