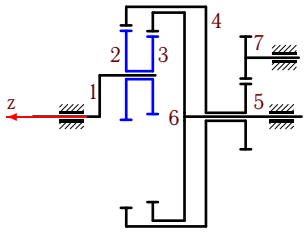
Планетарный редуктор

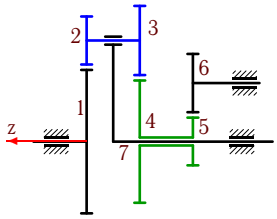
Найти угловую скорость ведомого вала 7 планетарного редуктора. Даны угловые скорости ведущего вала 1 и колеса 6 ($с^{-1}$) и радиусы всех колес в сантиметрах.

Задача К21.1. *3*



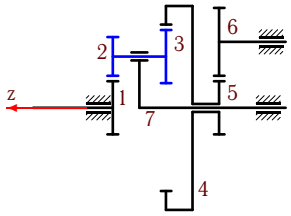
$r_1 = 7$, $r_2 = 8$, $r_3 = 7$, $r_4 = 15$, $r_5 = 6$, $r_6 = 14$, $r_7 = 4$, $\omega_{1z} = -30$, $\omega_{6z} = 10$,

Задача К21.2. *3*



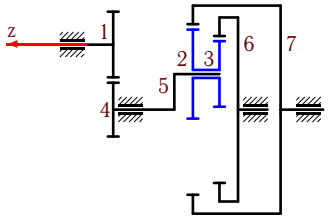
$r_1 = 14$, $r_2 = 5$, $r_3 = 7$, $r_4 = 12$, $r_5 = 5$, $r_6 = 6$, $r_7 = 19$, $\omega_{1z} = 38$, $\omega_{6z} = 95$,

Задача К21.3. *3*



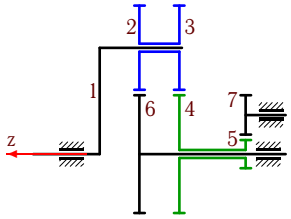
$r_1 = 4$, $r_2 = 3$, $r_3 = 4$, $r_4 = 11$, $r_5 = 4$, $r_6 = 5$, $r_7 = 7$, $\omega_{1z} = 49$, $\omega_{6z} = 196$,

Задача К21.4. *3*



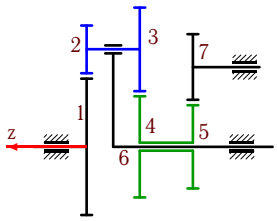
$r_1 = 6$, $r_2 = 8$, $r_3 = 6$, $r_4 = 5$, $r_5 = 6$, $r_6 = 12$, $r_7 = 14$, $\omega_{1z} = 5$, $\omega_{6z} = 1$,

Задача К21.5. *3*



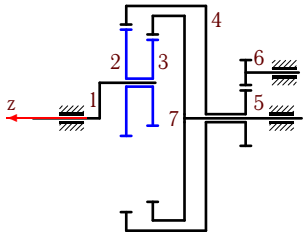
$r_1 = 19$, $r_2 = 8$, $r_3 = 8$, $r_4 = 11$, $r_5 = 3$, $r_6 = 11$, $r_7 = 4$, $\omega_{1z} = 8$, $\omega_{6z} = -64$,

Задача К21.6. *3*



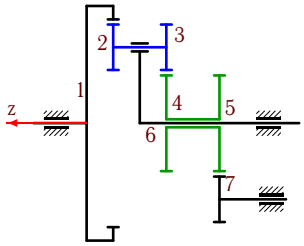
$r_1 = 8$, $r_2 = 3$, $r_3 = 5$, $r_4 = 6$, $r_5 = 5$, $r_6 = 11$, $r_7 = 4$, $\omega_{1z} = 55$, $\omega_{6z} = 172$,

Задача К21.7. *3*



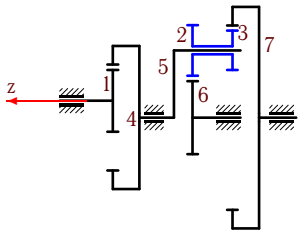
$r_1 = 7$, $r_2 = 11$, $r_3 = 9$, $r_4 = 18$, $r_5 = 6$, $r_6 = 3$, $r_7 = 16$, $\omega_{1z} = 162$, $\omega_{6z} = -148$,

Задача К21.8. *3*



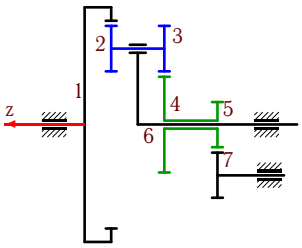
$r_1 = 20$, $r_2 = 5$, $r_3 = 5$, $r_4 = 10$, $r_5 = 10$, $r_6 = 15$, $r_7 = 5$, $\omega_{1z} = 5$, $\omega_{6z} = 3$,

Задача К21.9. 3



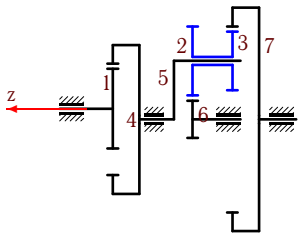
$r_1 = 6$, $r_2 = 5$, $r_3 = 4$, $r_4 = 9$, $r_5 = 12$, $r_6 = 7$, $r_7 = 16$, $\omega_{1z} = 45$, $\omega_{6z} = 10$,

Задача К21.10. 3



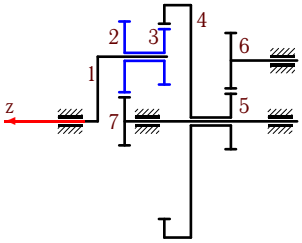
$r_1 = 20$, $r_2 = 5$, $r_3 = 5$, $r_4 = 10$, $r_5 = 5$, $r_6 = 15$, $r_7 = 5$, $\omega_{1z} = 5$, $\omega_{6z} = 3$,

Задача К21.11. 3



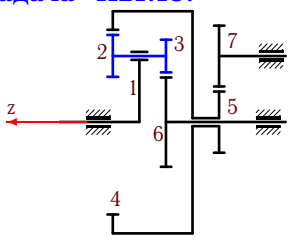
$r_1 = 8$, $r_2 = 7$, $r_3 = 6$, $r_4 = 10$, $r_5 = 11$, $r_6 = 4$, $r_7 = 17$, $\omega_{1z} = 170$, $\omega_{6z} = 17$,

Задача К21.12. 3



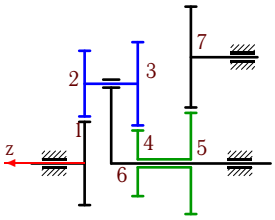
$r_1 = 17$, $r_2 = 10$, $r_3 = 8$, $r_4 = 25$, $r_5 = 8$, $r_6 = 8$, $r_7 = 7$, $\omega_{1z} = -125$, $\omega_{6z} = 181$,

Задача К21.13. 3



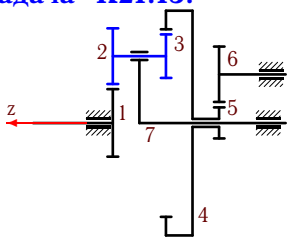
$r_1 = 14$, $r_2 = 5$, $r_3 = 4$, $r_4 = 19$, $r_5 = 7$, $r_6 = 10$, $r_7 = 7$, $\omega_{1z} = 5$, $\omega_{6z} = 119$,

Задача К21.14. 3



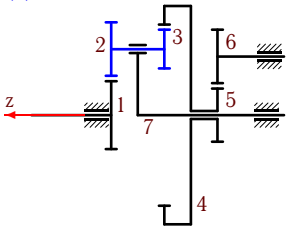
$r_1 = 5$, $r_2 = 4$, $r_3 = 5$, $r_4 = 4$, $r_5 = 6$, $r_6 = 9$, $r_7 = 6$, $\omega_{1z} = 9$, $\omega_{6z} = 169$,

Задача К21.15. 3



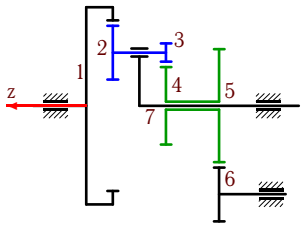
$r_1 = 6$, $r_2 = 5$, $r_3 = 4$, $r_4 = 15$, $r_5 = 3$, $r_6 = 5$, $r_7 = 11$, $\omega_{1z} = 66$, $\omega_{6z} = 99$,

Задача К21.16. 3



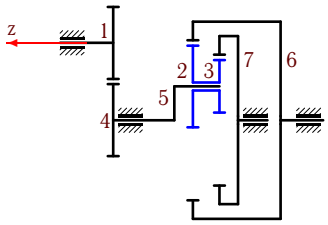
$r_1 = 5$, $r_2 = 4$, $r_3 = 3$, $r_4 = 12$, $r_5 = 4$, $r_6 = 4$, $r_7 = 9$, $\omega_{1z} = 21$, $\omega_{6z} = 84$,

Задача К21.17. 3



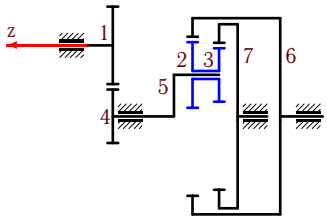
$r_1 = 14$, $r_2 = 5$, $r_3 = 2$, $r_4 = 7$, $r_5 = 10$, $r_6 = 5$, $r_7 = 9$, $\omega_{1z} = 57$, $\omega_{6z} = 30$,

Задача К21.18. 3



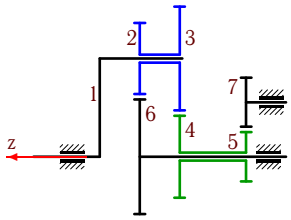
$r_1 = 8$, $r_2 = 9$, $r_3 = 6$, $r_4 = 8$, $r_5 = 7$, $r_6 = 16$, $r_7 = 13$, $\omega_{1z} = 768$, $\omega_{6z} = -183$,

Задача К21.19. 3



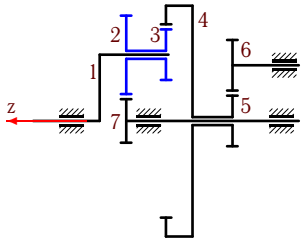
$r_1 = 7$, $r_2 = 6$, $r_3 = 5$, $r_4 = 5$, $r_5 = 7$, $r_6 = 13$, $r_7 = 12$, $\omega_{1z} = 325$, $\omega_{6z} = 121$,

Задача К21.20. 3



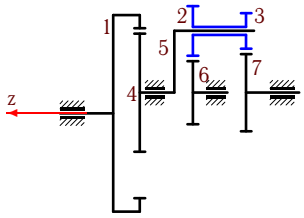
$r_1 = 18$, $r_2 = 7$, $r_3 = 10$, $r_4 = 8$, $r_5 = 5$, $r_6 = 11$, $r_7 = 5$, $\omega_{1z} = 55$, $\omega_{6z} = 167$,

Задача К21.21. 3



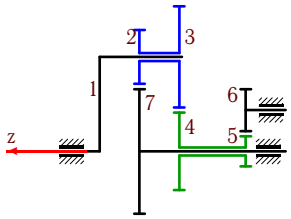
$r_1 = 19$, $r_2 = 12$, $r_3 = 8$, $r_4 = 27$, $r_5 = 8$, $r_6 = 8$, $r_7 = 7$, $\omega_{1z} = 324$, $\omega_{6z} = -268$,

Задача К21.22. 3



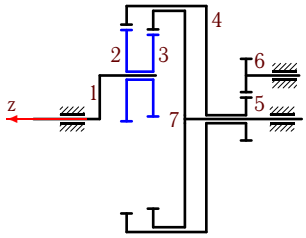
$r_1 = 12$, $r_2 = 4$, $r_3 = 3$, $r_4 = 9$, $r_5 = 9$, $r_6 = 5$, $r_7 = 6$, $\omega_{1z} = 144$, $\omega_{6z} = 8$,

Задача К21.23. 3



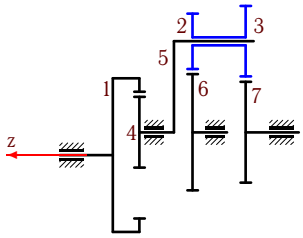
$r_1 = 16$, $r_2 = 5$, $r_3 = 9$, $r_4 = 7$, $r_5 = 3$, $r_6 = 4$, $r_7 = 11$, $\omega_{1z} = 66$, $\omega_{6z} = 99$,

Задача К21.24. 3



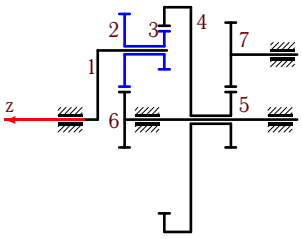
$r_1 = 9$, $r_2 = 10$, $r_3 = 9$, $r_4 = 19$, $r_5 = 5$, $r_6 = 4$, $r_7 = 18$, $\omega_{1z} = -76$, $\omega_{6z} = -105$,

Задача К21.25. *3*



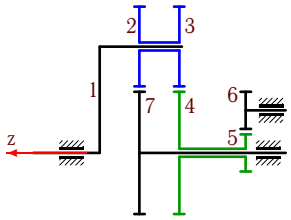
$r_1 = 8$, $r_2 = 4$, $r_3 = 5$, $r_4 = 5$, $r_5 = 12$, $r_6 = 8$, $r_7 = 7$, $\omega_{1z} = 70$, $\omega_{6z} = 7$,

Задача К21.26. *3*



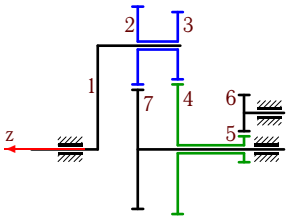
$r_1 = 16$, $r_2 = 9$, $r_3 = 5$, $r_4 = 21$, $r_5 = 7$, $r_6 = 7$, $r_7 = 8$, $\omega_{1z} = -216$, $\omega_{6z} = 216$,

Задача К21.27. *3*



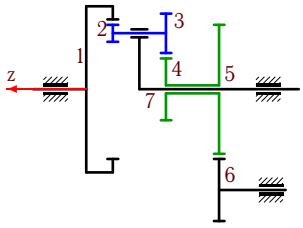
$r_1 = 20$, $r_2 = 8$, $r_3 = 8$, $r_4 = 12$, $r_5 = 4$, $r_6 = 4$, $r_7 = 12$, $\omega_{1z} = 2$, $\omega_{6z} = -4$,

Задача К21.28. *3*



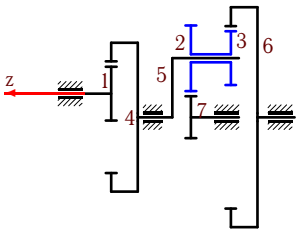
$r_1 = 20$, $r_2 = 8$, $r_3 = 7$, $r_4 = 13$, $r_5 = 3$, $r_6 = 4$, $r_7 = 12$, $\omega_{1z} = 3$, $\omega_{6z} = -18$,

Задача К21.29. *3*



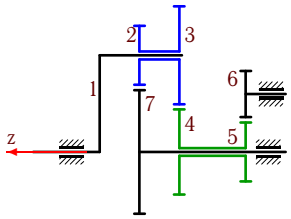
$r_1 = 12$, $r_2 = 2$, $r_3 = 4$, $r_4 = 6$, $r_5 = 12$, $r_6 = 6$, $r_7 = 10$, $\omega_{1z} = 35$, $\omega_{6z} = 60$,

Задача К21.30. *3*



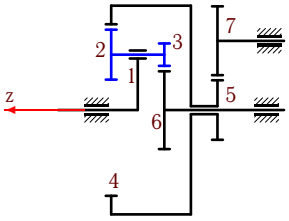
$r_1 = 5$, $r_2 = 6$, $r_3 = 5$, $r_4 = 9$, $r_5 = 10$, $r_6 = 15$, $r_7 = 4$, $\omega_{1z} = 27$, $\omega_{6z} = 17$,

Задача К21.31. *3*



$r_1 = 15$, $r_2 = 5$, $r_3 = 8$, $r_4 = 7$, $r_5 = 5$, $r_6 = 4$, $r_7 = 10$, $\omega_{1z} = 16$, $\omega_{6z} = 160$,

Задача К21.32. *3*



$r_1 = 12$, $r_2 = 6$, $r_3 = 3$, $r_4 = 18$, $r_5 = 7$, $r_6 = 9$, $r_7 = 8$, $\omega_{1z} = 1$, $\omega_{6z} = 18$,

К21 **Ответы.**
Планетарный редуктор 09.08.2012

№	ω_7	ω_2
1	-19	50
2	278	950
3	-149	-413
4	2	8
5	48	107
6	110	484
7	81	18
8	2	11
9	37	58
10	1	11
11	160	204
12	125	-300
13	70	-280
14	81	369
15	-109	-319
16	-59	-159
17	17	129
18	-288	272
19	65	793
20	-275	-121
21	648	135
22	77	422
23	-4	220
24	76	228
25	-38	322
26	259	-552
27	4	-1
28	29	-36
29	22	100
30	6	21
31	-47	142
32	14	-50

K21 файл o21k3A