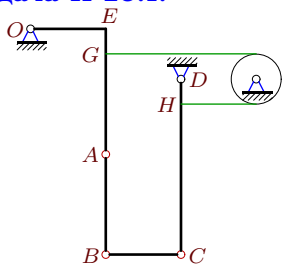
Плоский механизм с блоком

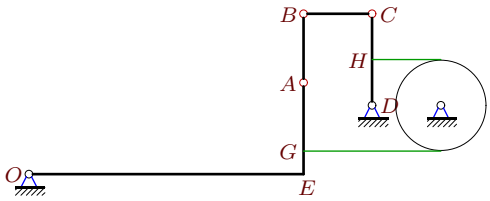
В указанном положении механизма задана угловая скорость одного из звеньев ($с^{-1}$). Длины звеньев даны в сантиметрах. Стержни и нити, направление которых не указано, считать горизонтальными или вертикальными. Нить огибает диск радиусом r без проскальзывания. Найти угловые скорости всех звеньев механизма.

Задача К-28.1. *Абалин Максим*



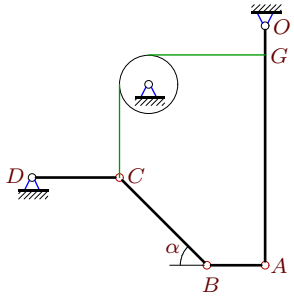
$OE = 3$, $CB = 3$, $AB = 4$, $CD = 7$, $r = 1$, $CH = 6$, $AG = 4$, $GE = 1$, $\omega_{OA} = -1$.

Задача К-28.2. *Абдулвалиев Роман*



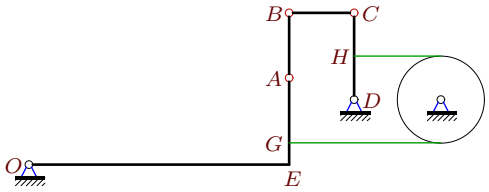
$OE = 12$, $CB = AB = 3$, $CD = 4$, $r = 2$, $CH = 2$, $AG = 3$, $GE = 1$, $\omega_{AB} = 4$.

Задача К-28.3. *Антонова Вера*



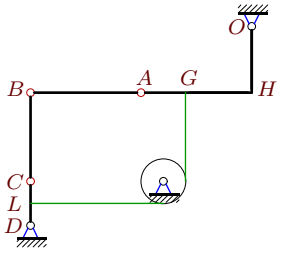
$OA = 8$, $CB = 3\sqrt{2}$, $CD = 3$, $AB = 2$, $OG = 1$, $r = 1$, $\omega_{OA} = -6$, $\alpha = 45°$.

Задача К-28.4. *Большаков Павел*



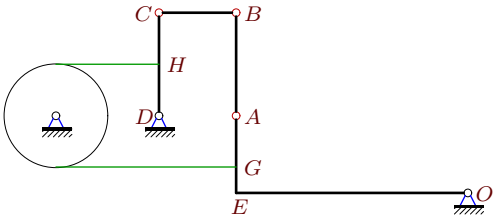
$OE = 12$, $CB = AB = 3$, $CD = 4$, $r = 2$, $CH = 2$, $AG = 3$, $GE = 1$, $\omega_{CB} = 8$.

Задача К-28.5. *Воропай Руслан*



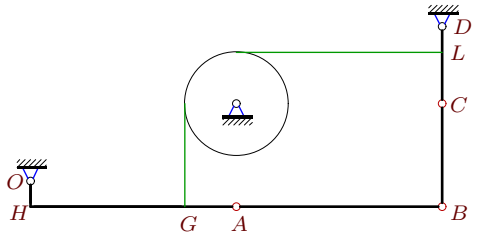
$OH = 3$, $CB = 4$, $HA = AB = 5$, $CD = 2$, $r = 1$, $CL = 1$, $AG = 2$, $\omega_{CD} = 12$.

Задача К-28.6. *Ершов Леонид*



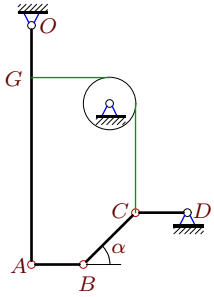
$OE = 9$, $CB = 3$, $AB = 4$, $CD = 4$, $r = 2$, $CH = AG = 2$, $GE = 1$, $\omega_{CB} = 12$.

Задача К-28.7. *Загородний Константин*



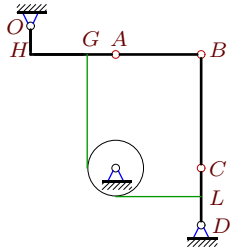
$OH = 1$, $CB = 4$, $HA = AB = 8$, $CD = 3$, $r = 2$, $CL = 2$, $AG = 2$, $\omega_{OA} = 4$.

Задача К-28.8. *Казбаев Владимир*



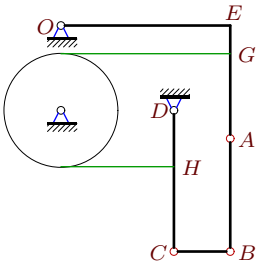
$OA = 9$, $CB = 2\sqrt{2}$, $CD = AB = 2$, $OG = 2$, $r = 1$, $\omega_{CB} = -9$, $\alpha = 45°$.

Задача К-28.9. *Кириенок Дмитрий*



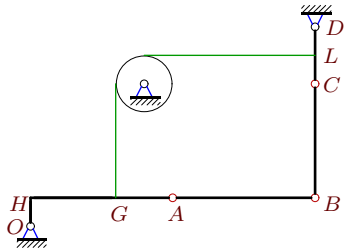
$OH = 1$, $CB = 4$, $HA = AB = 3$, $CD = 2$, $r = 1$, $CL = 1$, $AG = 1$, $\omega_{CD} = 8$.

Задача К-28.10. *Китайкина Ирина*



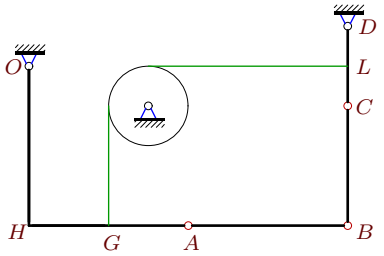
$OE = 6$, $CB = 2$, $AB = 4$, $CD = 5$, $r = 2$, $CH = AG = 3$, $GE = 1$, $\omega_{CB} = -24$.

Задача К-28.11. *Косарева Елена*



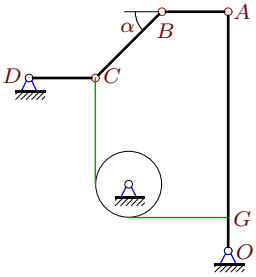
$OH = 1$, $CB = 4$, $HA = AB = 5$, $CD = 2$, $r = 1$, $CL = 1$, $AG = 2$, $\omega_{AB} = -4$.

Задача К-28.12. *Костин Андрей*



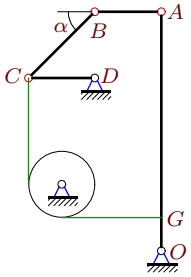
$OH = 4$, $CB = 3$, $HA = AB = 4$, $CD = 2$, $r = 1$, $CL = 1$, $AG = 2$, $\omega_{CD} = 2$.

Задача К-28.13. *Любчик Владислав*



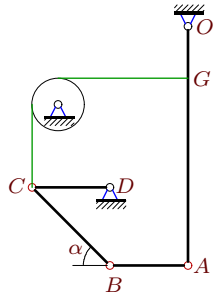
$OA = 7$, $CB = 2\sqrt{2}$, $CD = AB = 2$, $OG = 1$, $r = 1$, $\omega_{CB} = -7$, $\alpha = 45°$.

Задача К-28.14. *Маслов Владислав*



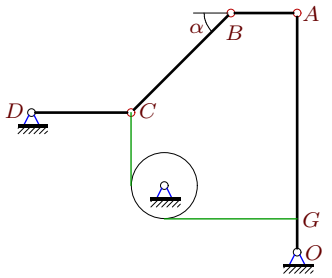
$OA = 7$, $CB = 2\sqrt{2}$, $CD = AB = 2$, $OG = 1$, $r = 1$, $\omega_{AB} = 8$, $\alpha = 45°$.

Задача К-28.15. *Матвеев Александр*



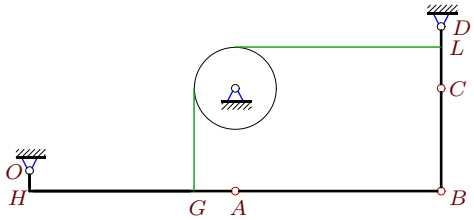
$OA = 9$, $CB = 3\sqrt{2}$, $CD = AB = 3$, $OG = 2$, $r = 1$, $\omega_{disk} = 6$, $\alpha = 45°$.

Задача К-28.16. *Пиценко Денис*



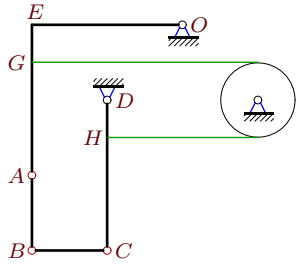
$OA = 7$, $CB = 3\sqrt{2}$, $CD = 3$, $AB = 2$, $OG = 1$, $r = 1$, $\omega_{disk} = 3$, $\alpha = 45°$.

Задача К-28.17. *Плешанова Анна*



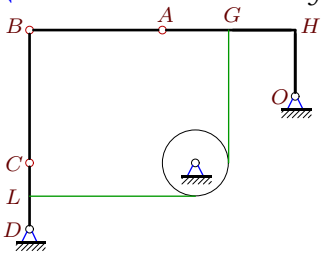
$OH = 1$, $CB = 5$, $HA = AB = 10$, $CD = 3$, $r = 2$, $CL = 2$, $AG = 2$, $\omega_{CD} = 40$.

Задача К-28.18. *Родионова Варвара*



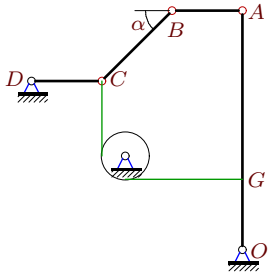
$OE = 4$, $CB = AB = 2$, $CD = 4$, $r = 1$, $CH = AG = 3$, $GE = 1$, $\omega_{OA} = -1$.

Задача К-28.19. *Сулименко Данил*



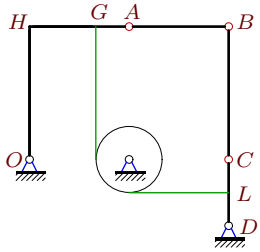
$OH = 2$, $CB = HA = AB = 4$, $CD = 2$, $r = 1$, $CL = 1$, $AG = 2$, $\omega_{OA} = 2$.

Задача К-28.20. *Сысолетин Иван*



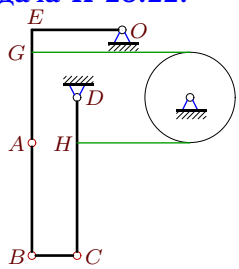
$OA = 10$, $CB = 3\sqrt{2}$, $CD = AB = 3$, $OG = 3$, $r = 1$, $\omega_{CD} = -3$, $\alpha = 45°$.

Задача К-28.21. *Фомичев Кирилл*



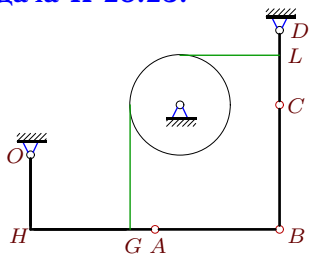
$OH = 4$, $CB = 4$, $HA = AB = 3$, $CD = 2$, $r = 1$, $CL = 1$, $AG = 1$, $\omega_{CD} = 2$.

Задача К-28.22. *Шпагина Юлия*



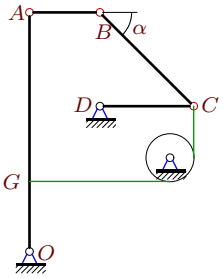
$OE = 4$, $CB = 2$, $AB = 5$, $CD = 7$, $r = 2$, $CH = 5$, $AG = 4$, $GE = 1$, $\omega_{CD} = 5$.

Задача К-28.23. *Щеглов Иван*



$OH = 3$, $CB = HA = AB = 5$, $CD = 3$, $r = 2$, $CL = 2$, $AG = 1$, $\omega_{CD} = 20$.

Задача К-28.24. *Карпов Юрий*



$OA = 10$, $CB = 4\sqrt{2}$, $CD = 4$, $AB = 3$, $OG = 3$, $r = 1$, $\omega_{CB} = -30$, $\alpha = 45°$.