CSE200A: Competitive Programming I (Summer 2019) May 2019 Long Challenge

Apoorv Singh, Shaurya Bagga

May 2019

1 Links for Editorials

- Link containing the editorials of all problems
- Ada Rooks 2 (ADAROKS2)
- Binary Movements (BINARY)

2 Concepts Used

- Rotation of the coordinate axes is used in the problem WTBTR. Although it is not impossible to solve a problem without rotation, it surely makes the implementation easier and less error-prone. The article contains a paragraph on rotation of the axes. Link.

  The following concepts are pretty advanced, and would not be asked in the exam.

- Min Vertex cover (Used in Ada Pawns) is equal to Maximum Matching in a bipartite graph (Konig-Egervary Theorem), You can read about matching from here. Link.
- An article on Prufer codes, used in the problem Trees and Degrees (TREDEG). Link.
- Mo's Algorithm on Trees, used in Sonya and Gifts (SONGIF). Link.
- Convex Hull Trick used in Sonya and Gifts. Link.
- Binary Lifting, used in the problem Chef and Elephant Tree (PKLVES). Link.

You should focus on solving at least the first 5 problems, i.e.,

- Reduce to One
- Matches

- Where to Build the Roads
- Ada Rooks 2
- Binary Movements