Rules and requirements for the participants of the Computer Optimization Contest (Goat)

Informal description

The problems of the competition are shaped as constructor-simulator programs. Commonly, the aim is to construct a certain model and adjust it to obtain the optimal (best) estimate.

Solutions are evaluated on several parameters. The problems are selected in such a way that it is possible to get a good solution analytically, however it is very difficult or impossible to *calculate* the really best solution without a massive brute force. Some of those problems have several optimal solutions, which vary significantly from each other.

General Provisions

- 1. The Optimization Contest is a team competition. The final team score is composed from the best results of team members per each problem. The maximum team score is 100 points.
- 2. During the competition, participants receive three optimization problems to solve. Team members are allowed to organize their work in any way: distribute the problems among themselves, or solve problems together, or help one another, and so on.
- 3. It is strictly forbidden to resort to the assistance of persons who are not members of the team. Violation of this paragraph leads to invalidation of the team's results for this competition.
- 4. The results are published the next day after the competition.

Regulations

- 1. The competition begins on November 1, 2023, at 10:00 Moscow time (7:00 UTC) and lasts 2 hours.
- 2. The competition is conducted on a dedicated web platform.
- 3. Each participant has an individual account on the competition platform. Accounts are created and configured by the organizing committee.
- 4. The link to the competition platform as well as the list of usernames and passwords of team participants will be emailed to team advisors one day before the start of the competition. In addition, at this time, the address of the competition platform will be published on the <u>Tournament website</u>.
- 5. Participants are prohibited from changing account settings, publishing or transferring these data to other people.
- 6. The problems will become available to participants with the start of the competition at 10:00 Moscow time on November 1, 2023.
- 7. Participants are prohibited from logging into the competition platform from two or more devices. Such actions are regarded as an attempt to deceive the system and are punished with invalidation of the results.
- 8. Simulator programs send the best results of participants to the competition platform automatically. The system begins to accept results with the start of the contest and closes in 2 hours, as the contest ends.

 Any results received after the end of the contest are ignored.
- 9. During the competition, participants can ask the organizing committee questions concerning the contest using the textual and voice chat that will be opened.
- 10. In case of unforeseen circumstances (force majeure) that make impossible all team members to participate in the competition, the team advisor should inform the organizing committee.
- 11. Any attempt to compromise the testing system or data transfer protocols is punishable by team disqualification.
- 12. Verification of solutions begins after the end of the competition. The best solutions of teams are checked against plagiarism; the final results are combined and brought to a 100-point scale.

System requirements for participants' computers

- Availability of Internet access, channel bandwidth of at least 100 kB/sec.
- CPU frequency: 1 GHz or higher
 RAM: 1GB or higher
 OS: Windows, Linux
- Web browser: any one with HTML v5 support.
- Settings: JavaScript and Java applets should be enabled in your browser settings.