The 2024 ICPC Asia Jakarta Indonesia National Contest (INC 2024) Rules

Contest Time

The teams will compete to solve the given problems (typically 10 to 13 problems) in 5 hours of contest time.

Each problem has the following components:

- Problem description — the description will be given in English.
- Input specification — details on the input format, including the input constraint.
- Output specification — details on the output format.
- Sample input/output — an explanation for the samples might be provided, optionally.

Each problem has a time-limit and memory-limit constraint for its solution, i.e. the solution should run within the allowed time-limit and memory-limit to produce the correct output. The time limit and memory limit will be broadcasted at the beginning of the contest through the contest management system (DOMjudge).

You may find the problems from the previous INC as examples in TLX (https://tlx.toki.id/problems/problemsets?archive=inc).

During the contest, teams may ask for clarifications about the problems using the DOMjudge. If the judges agree that an ambiguity or error exists, a clarification will be issued to all contestants. Clarification will always be open during the contest time.

Solutions/Submissions

Each team should submit their solution (source code) through the contest management system (DOMjudge) anytime during the contest time.

A problem is considered **solved** by the team if a verdict of "CORRECT" is given to the corresponding submission by DOMjudge.

Each submission may get one of these responses from DOMjudge:

- **CORRECT** – the solution produced the correct output within the time and memory limit without any error. The corresponding problem is considered solved.
- **WRONG-ANSWER** – the solution did not produce the correct output.
- **RUN-ERROR** – the solution crashed (runtime-error) when processing the test data or the solution consumed more memory than the allowed memory limit for the problem (Memory Limit Exceeded).
- **TIMELIMIT** – the solution took more time to produce the output than the allowed time limit for that problem.
- **NO-OUTPUT** – the solution produced no output.
- **COMPILER-ERROR** – the solution could not be compiled.

No other details will be given to each response.

Fair Competition

A team may be **disqualified** if the team is found to be cheating. Cheating includes any attempt or activity by an individual, group, team members, and/or coach, to enhance or diminish their performance or that of other teams using methods that are unfair to the contest. This includes but is not limited to efforts such as:

- submitting a solution that is not their own, <u>**including a solution written by generative AI**</u>;
- communication with <u>**any people**</u> other than team members and the judges (through the clarification system) during the contest;
- hacking (successful or not) the contest management system.

All teams should uphold the sportsmanship and the spirit of fair competition.

Ranks

Teams are ranked according to the most problems solved. Teams who solve the same number of problems are ranked by the least total time. The total time is the sum of the time consumed for each solved problem (in minutes). The time consumed for a solved problem is the time elapsed from the beginning of the contest to the submittal of the first correct solution plus 20 penalty minutes for every previously incorrect solution for that problem. <u>Submissions with a COMPILE-ERROR verdict will not be penalized</u>.

Programming Languages

The supported programming languages for INC 2024 are:

- C
- C++20
- Java
- Python 3

Note that a Python solution can be much slower compared to the other two programming languages, thus, we **do not** guarantee all the problems can be solved with the time-limit constraint with Python even though the same algorithm is being used. Nevertheless, you may use Python as you see fit.

The server/grader is installed with:

- C/C++20: g++ (Ubuntu 11.3.0-1ubuntu1~22.04.1) 11.3.0
- Java: javac 11.0.17
- Python 3: python 3.10.6

The compile/run options used for each of the languages are:

- C: -x c -Wall -static -pipe -DONLINE_JUDGE -DDOMJUDGE -lm

- C++: -x c++ -std=c++20 -Wall -O2 -static -pipe -DONLINE_JUDGE -DDOMJUDGE
- Java: -XX:+UseSerialGC -Xss64m -DONLINE_JUDGE -DDOMJUDGE

Pre-Contest

Contestants are not required to attend the practice session. However, the committee suggests contestants to participate to become familiar with the contest environment. Teams access DOMJudge for INC 2024 through their self-prepared computer with internet access.

The information regarding DOMJudge will be sent before the practice session. If the team still has not received any email during the practice session, please contact us at lombati@binus.edu.

Post-Contest

The top 40 teams in INC 2024 will be announced several days after the contest. The committee will conduct a validity check to ensure a fair competition among the contestants. Additionally, teams outside the top 40 in INC 2024 may receive special invitations (golden tickets), subject to the decision of The 2024 ICPC Asia Jakarta Regional Contest.

Frequently Asked Questions (FAQs)

- Will there be scoreboard freeze?
  - No.
- If a team's network connection is interrupted, can the team rejoin the contest?
  - Yes, but there will be no extra time.
- Can a team use more than one computer?
  - Yes, there are no restrictions on the number of computers each team can use to solve the problems in INC 2024.
- Are codes from references inside a solution allowed?
  - Yes, it is allowed. There are no restrictions on team references (the contest is open-book). Teams may use references from any source as long as they comply with the rules (see the "Fair Competition" section)