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## **ICPC Asia Yokohama Regional Contest 2022**

# **Contest Information**

Host: Keio University, Japan  
December 27-28, 2022



International Collegiate Programming Contest  
Asia Yokohama Regional Contest 2022

This document includes important information concerning ICPC Asia Yokohama Regional Contest 2022, including the following:

- Contest Regulations
- Rehearsal and Regional Contest Information
- Computer Environment

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## Contest Regulations

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**NOTE:** Failure to comply with the regulations may lead to disqualification of the offending team.

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### **Registration Check**

All team members must show up **together** at the reception desk and show their **student IDs** (or other proof of enrollment) before entering the contest area. You may exit/re-enter the contest area as long as you keep wearing the ICPC T-shirt with your name tag on it.

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### **No Photos**

Do not take photos in the contest area. Only our staff can take pictures. The pictures that we take will be posted on the ICPC 2022 Yokohama web site.

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### **No Electronic Devices, No Mobile Phones, No USB memory sticks, No Watches**

During the contest (including the rehearsal) you are NOT allowed to use any kind of electronic/communication devices such as laptop computers, tablet computers, digital cameras, electronic calculators, digital dictionaries, radios, mobile phones, smart phones, and pagers, except for the devices provided for the contest. Also do NOT bring any memory devices such as USB memory sticks to the contest area. Finally, do NOT bring any watches/clocks. If you bring any of these, keep all of these in your backpack, bags, etc with the **power turned off**. There will be no cloak area for 2022.

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### **Device Usage Restriction**

You may only use the keyboard, mouse and monitor attached to the contest computer. You may NOT touch (including open or move) the computer. You may NOT use the DVD drive of the computer. Also, you may NOT connect anything (such as USB thumb drives) to or disconnect anything (such as keyboard, mouse, cable or power source) from the computer.

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### **File Creation Policy**

You may only create/modify files under your home directory and some other limited places such as /tmp. All the changes you make to the file system during the rehearsal will be **cleared** before the contest.

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### **Network Access Restriction**

During the contest (including rehearsal), do NOT try to access any computers other than the contest server.

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### **English Only**

You can only use English when you ask questions to the contest staff during the contest.

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### **Do NOT Talk to the Coach(es) and Other Teams**

Do not make any contact with the coaches during the contest. Coaches will not be allowed into the contest area during the contest on Dec 28. Any contact with contestants of other teams is also not allowed.

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### **Do NOT Go to the Restroom by Yourself**

If you need to go to the restroom, ask a contest staff to go with you. Please wait if the staff is away for other people.

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### **Printing**

During the contest (including rehearsal), the contest staff will bring your printouts to you. You are NOT permitted to fetch them from the printers (in a separate room) by yourself.

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### **Bringing Printed Materials into the Contest Area**

You may bring any PRINTED material you wish, including books, language reference manuals, code printouts, contest problems and their solutions.

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### **Snacks and Drinks**

Light snacks and drinks will be provided on your table. BE CAREFUL not to spill any drinks/snacks on to the table or the floor.

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### **Masks**

All team members must wear masks during the contest. You may take your masks off to eat/drink, but you may NOT talk with your mask off.

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## Rehearsal Information

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Place your belongings under or beside your table.

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There are four chairs at each table. They are for the three contestants and the coach for each team. If your team has an additional coach, ask nearby contest staff to bring a chair.

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The rehearsal is for teams to practice in the same environment as the main contest.

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The following items are on your table:

- A set of documents: contest information (this document), etc.
- Two sealed envelopes

You may read the documents while waiting for the rehearsal to begin. However, you may NOT open the envelopes until instructed to do so.

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Staff will come to your table to take your team photos including all members.

Please help them out when they come to your table.

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If you want us to take your pictures, please tell our camera staff when they come to your table.

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### **Your tasks during the rehearsal**

- Get used to the contest environment (Linux OS, editors, etc.).
  - Check the editors and/or the IDE (Eclipse) that you will use in the contest.
  - Check the compilers that you will use in the contest.
  - Login to DOMjudge (the judge system) and submit an answer at least once to the judges.
  - Learn how to print on the contest environment. Try to print something at least once.
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### **Misc. Notice**

Ask a staff member to take a team photo if you have not done it.

There will be no balloons for 2022. Please check DOMjudge to see which teams have solved which problems.

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## Regional Contest Information

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Bring your student ID (or other document that serves as proof of enrollment) with you. Keep wearing the ICPC T-shirt with your name tag on it while you are in the contest area.

Be seated at the same table that you used in the rehearsal.

Place your belongings including backpacks and bags under or beside your table. Turn any electronic device off, and put it into your bag.

There are three chairs at each table. Coaches may NOT enter the contest area.

Do not touch the computer until instructed to do so.

There is a sealed envelope on your table. Do not open it until instructed to do so.

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## Information from the Judges

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The submitted solution (program) must read the input data from the standard input and write the results to the standard output. The maximum execution time for each problem is written in the problem description. The specifications of the machines used by the judges are different from those of the contestants'. The judge's system is running in a cloud service.

### **Easiest Problems**

The first two of the problem set, A and B, are assumed to be the easiest. They are in order of easiness estimated. The order of the problem C and after is randomized irrespective of their difficulties.

### **Interactive Problems**

You may meet “interactive problems” in the 2022 ICPC Asia Yokohama Regional Contest. They are the same as other problems in a way that your program will read from standard input and print results to standard output. The difference is, the standard input and output are connected to a special program (judge program), with which you have to communicate back and forth. Unlike other problems where the input text is fixed for each test case, the input varies based on your previous outputs.

With interactive problems, it is crucial to make sure the output is actually sent from your program. Please read “Output Buffering” section of the Judging Notes in ICPC World Finals for the details: <https://docs.icpc.global/wp-content/uploads/2021/09/2020-21.JudgingNotes.Addendum.A4.pdf>  
We will provide an interactive problem in the rehearsal session held the day before the contest. Note that, unlike ICPC World Finals, we will not provide testing tools for interactive problems.

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## Computer Environment

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### **Hardware:** Lenovo ThinkPad L15 Gen 1

- Computer
  - Lenovo Thinkpad L15 Gen 1
    - ✧ CPU: Core i5-10210U (1.6 GHz)
    - ✧ RAM: 8 GB
    - ✧ SSD: 256 GB
- Display: 23.8 inch LED Wide Monitor
- Peripherals
  - English keyboard: one of the following two:
    - ✧ Lenovo Preferred Pro USB Keyboard
    - ✧ Lenovo Preferred Pro II USB Keyboard
    - ✧ \* Note that Japanese layout keyboards are NOT provided in the contest.
  - Mouse

### **Software:** (Versions may be subject to change)

- OS: Ubuntu 20.04.5 LTS Linux (64-bit)
- Desktop: GNOME
- Editors:
  - vim 8.1.3741
  - gvim 8.1.3741
  - emacs 26.2
  - gedit 3.36.2
  - kate 19.12.3
  - geany 1.36
  - Code::Blocks 20.03
  - Eclipse 2022-09 with CDT 10.7.1 PyDev 9.3.0
  - IntelliJ Idea Community Edition 2022.2.3
  - PyCharm Community Edition 2022.2.3
  - CLion 2022.2.4
  - VSCodium 1.72.2
- Languages:
  - Java: OpenJDK 11.0.17
  - C/C++: GCC 9.4.0
  - Python 3: Python 3.8.13 (implemented using PyPy 7.3.9)
  - Kotlin: 1.7.10
- Reference Docs: C++ docs, Java docs, Python3 docs, Pypy docs, Kotlin docs

