



# IChO Japan 2021 Examination Guideline

10 June, 2021

Version 2.2

Organizing Committee of IChO2021 Japan

## 1. General

### 1-1. Purpose of this Guideline

Due to the COVID-19 pandemic, IChO2021 Japan will be held remotely. This guideline is published to ensure that the theoretical examination for this remote IChO is conducted appropriately.

This document institutes the rules to be followed. It also provides countries with recommended operational methods to protect their delegations from potential (or false) accusations of cheating. Please read this document carefully.

### 1-2. Time Zone

All dates and times on this document are based on Japan Standard Time (JST), which is Coordinated Universal Time (UTC) +9 hours. Japan does not use daylight saving time during the summer.

### 1-3. Future Updates of This Document

This document may be updated in the future. When a modification is made to this document, the IChO2021 Organizing Committee will announce the modification immediately, and send the updated version of the guideline to all country coordinators.

## 2. Examination Date and Timetable

### 2-1. Examination Date

The theoretical examination will take place on 28 July, 2021.

### 2-2. Examination Time

- The duration of the examination is 5 hours.
- The details of the examination (printing time, starting time, ending time, scanning time, times and length of bathroom breaks, and calculator model) must be reported by invigilators. The report form to be completed by invigilators will be provided with the student examination papers.



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### 2-3. Examination Timetable

- The official examination period is 7:00 pm to 12:00 pm JST. If that period is not convenient in the time zone of the participating country, the examination may start up to 5 hours earlier or later. However, in this case, the participating students must observe a total communication ban (blackout) that includes the official examination period. For example, if they start earlier, they must remain secluded until 12:00 pm JST, and if they start later, they must be in isolation from 7:00 pm JST. If the participating country wishes to further change their examination time (for example, further earlier start), they may consult with the Organizer.
- All competitors in each country must have the same examination timetable to avoid ill-intentioned communication among competitors. Countries with multiple time zones must set their timetable on the basis of one specific time zone and conduct the examination accordingly.
- All countries must submit their choices for starting time, location and recording method via the registration site by 30 June.

### 2-4. Management of the Examination

- The preparation of the examination (discussions, voting, translation, printing) will be conducted using Oly-Exam software. Mentors will read, comment and vote on, and translate the examination text using the Oly-Exam software. Only a browser and internet access are necessary.
- Manuals for the Oly-Exam software can be found at <https://demo.oly-exams.org/docs/>. In the event of any difficulties, mentors and invigilators should refer to the manual. The Organizing Committee will also provide technical support during IChO2021.
- The mentor and the invigilator for each country will receive individual accounts to access Oly-Exam.
- Online training for Oly-Exam will be held at 9:00 pm JST on 23 July via Zoom. The details of the Zoom meeting will be announced separately. All mentors and invigilators are expected to attend the training. Observer countries are also invited. The training session will be recorded, and the link to the recorded file will be available during IChO2021.

## 3. Examination Conditions

### 3-1. Location of Examination

- The examination location must be a calm and quiet room with electricity, PC or smartphone, web camera, microphone, high quality printer, scanner with PDF-conversion software, and stable internet connection. Each location will be checked via Zoom before the examination.
- It is the responsibility of the country to maintain the location in a state suitable for the



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examination. No additional time will be given, even if the examination is interrupted as a result of local problems.

- The examination location should not be the home of a student or a student's relative.
- A single location for the full number of 4 students is highly preferred. If legal travel restrictions in the country forbid a single location, multiple locations for one country are acceptable. In this case, all locations must follow the same examination timetable, and must meet all the requirements. All locations must be notified to the IChO2021 Organizer with the names of the invigilators.
- The students in each location are to be supervised by 1 or 2 invigilators during the examination.
- The students must maintain an appropriate distance from each other in the examination room.

### 3-2. Invigilators

- Invigilators must be independent of the mentors, must have no relationship with students and must have no other activity in IChO2021. Invigilators should be socially well-established persons such as school principals. The names, positions, and affiliations of the invigilators will be open, as well as those of the mentors.
- Invigilators should not be a parent or a relative of a student.
- Each delegation must register all invigilators at the registration site.
- The invigilators need a good command of English.
- Invigilators will receive an individual account to access Oly-Exam. This account only allows them to access the PDF files of the official English version and final translated version of the problems, and to upload the scanned answers.
- Invigilators must complete the downloading and the printing of the English version and the final translated version of the problems for each student before starting the examination. The problems and answer sheets must be printed clearly. The Organizing Committee will not take any responsibility if an unclear print-out results in incorrect answers given by a student.
- Invigilators should clearly announce the examination timetable to the students before the examination.
- Students are not allowed to use any electronic communication devices (e.g., smartphone, computers, smartwatches) during the examination and between 7:00 pm and 12:00 pm JST. Taking account of different examination starting and ending times, the total blackout periods are as follows:

Exam start	Exam end	Total blackout period
2:00 pm JST	7:00 pm JST	2:00 pm - 12:00 pm JST
3:00 pm JST	8:00 pm JST	3:00 pm - 12:00 pm JST
4:00 pm JST	9:00 pm JST	4:00 pm - 12:00 pm JST



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5:00 pm JST	10:00 pm JST	5:00 pm - 12:00 pm JST
6:00 pm JST	11:00 pm JST	6:00 pm - 12:00 pm JST
7:00 pm JST	12:00 pm JST	7:00 pm - 12:00 pm JST
8:00 pm JST	1:00 am* JST	7:00 pm - 1:00 am* JST
9:00 pm JST	2:00 am* JST	7:00 pm - 2:00 am* JST
10:00 pm JST	3:00 am* JST	7:00 pm - 3:00 am* JST
11:00 pm JST	4:00 am* JST	7:00 pm - 4:00 am* JST
12:00 pm JST	5:00 am* JST	7:00 pm - 5:00 am* JST

\*: 29 July

Students are to give their devices to the invigilators before the blackout period shown above. The invigilators will store them for the total blackout period. If the total blackout period includes mid-night or early morning, the invigilators may store them until the next day or from a day before the examination day. The invigilators must ensure that the students do not use any computers installed in the examination location over the relevant total blackout period.

- Invigilators must not allow the students to open the booklet of problems before the examination starts.
- After the examination, invigilators should scan all answer sheets to prepare one PDF file per student, sorting the sheets in the order of the page numbers. All PDF files should be submitted to the IChO2021 Organizer using Oly-Exam within 2 hour after the end of the examination. The answer sheets must be scanned clearly and properly. The Organizing Committee will not take any responsibility if grading is impossible due to unreadable scanning. Only a PDF format file is acceptable.
- Students are not supposed to ask questions during the exam. Invigilators are not to speak with students other than to issue the instructions to begin and end the examination. Students may view the official English version of the examination only when they request clarification of a problem.
- Invigilators may prepare water and snacks or refreshments for the students outside the examination room.
- It is strongly recommended that recording, printing, scanning and uploading files are tested before the examination.

### 3-3. Equipment

- Only a non-programmable calculator, good writing pen and a ruler can be used during the examination.
- The calculator should be a scientific electronic calculator by which logarithmic function, using both base 10 and e, exponential function, and root can be calculated. Students must be familiar with how to use the calculator, and can use their own calculator. The brand and the model name or number of the calculator must be notified



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from the registration site.

- Students should write their answers only using a pen with dark ink. The invigilators may test the printing and scanning process in advance for readability.

### 3-4. Recording

Videos of the students must be recorded from the beginning to the end of the examination.

All students (whole body) and their activities need to be visible. The IChO2021 Organizer will send the individual Zoom meeting links to invigilators. Invigilators should click on the link at a reasonable time before the examination to directly enter the Zoom meeting hosted by the IChO2021 Organizer. The recording in the cloud will start automatically. Invigilators should place their PC or web camera at a location where the whole room (four students together) can be seen. All devices must have a stable internet connection and the data-transfer rate must be greater than 2 Mbps.

If a country faces a technical problem regarding a stable internet connection because of local factors, it must report the situation to the IChO2021 Organizer before the examination. In this situation, offline recording of the examination will be approved, and the invigilators must upload the recorded video data after the examination. If recording offline, the video-camera or recording device must be able to record at least 5 hours in an easily shared format (e.g. MP4) with a reasonable file size and quality. The recording can be made in parts without any perceivable time-gaps (e.g. two devices are used alternatively). The recording file must have time-stamps.

Students or their parents must give their written consent for the recording and its sharing with the IChO2021 Organizer.

### 4. Important Dates

9:00 pm JST, 23 July

Online training for Oly-Exam will be held via Zoom.

9:00 am JST, 25 July

The online opening ceremony will start. The access point for the ceremony will be announced separately. After the opening ceremony, the mentors are not allowed to contact the students.

9:00 pm JST, 25 July

Oly-Exam will be open for access. The first versions of the problems will be provided to mentors, who can submit questions, suggestions, corrections and comments via Oly-Exam. Online discussion will end at 9:00 am JST, 26 July. The Organizing Committee expects mentors to post all discussions on Oly-Exam to keep the Jury meeting short.



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9:00 pm JST, 26 July

The first International Jury meeting will be held via Zoom to finalize the problems. The Zoom meeting link and password will be sent to mentors.

The attendees' display names should be their Country Code (three letters) followed by their name (e.g., JPN\_Aaa Bbb). The display name can be changed after entering the Zoom meeting.

Only the head mentor can vote in the Jury meeting. When the Jury meeting is split into two parallel sessions, and the head mentor and mentor attend each session separately, mentor can also vote.

Observers can attend the Jury meeting, but guests are not allowed. If the display name does not match the registered name, the host will dismiss this attendee from the Zoom meeting after taking care to ensure that only the appropriate people attend the Jury meeting.

9:00 am JST, 27 July

Translation via Oly-Exam will begin. The official English versions of the problems will be provided to mentors via Oly-Exam. If any revisions have been made, Oly-Exam will show the revised version of the problems along with the previous version. The changes can therefore be readily reflected in the translations by the mentors.

After the translations are completed, the mentors should approve the translated versions of the problems. Once the mentors approve a translation, no more changes are allowed. Therefore, approvals must be done carefully. The translations must be completed by 9:00 am JST, 28 July.

11:00 am JST, 28 July

Invigilators can access Oly-Exam to print out the translated versions of the problems along with the official English version.

2:00 pm to 12:00 pm JST, 28 July

Invigilators instruct the students to start the examination according to the time schedule in each country.

7:00 pm JST, 28 July to 5:00 am JST, 29 July

Invigilators instruct the students to stop the examination at 5 hours after the start time (i.e. from 2:00 pm to 7:00 pm JST in the earliest timetable and from 12:00 pm to 5:00 am JST in the latest timetable). The invigilators collect all answer sheets, sort and scan them, and convert them to PDF files. The PDF files for each student are submitted to Oly-Exam.



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9:00 am JST, 29 July

The student answers, solutions, and marking scheme are provided to mentors via Oly-Exam. The Organizer and the mentors begin marking.

9:00 am JST, 30 July

Grading of the students will be announced by the Organizer. The mentors decide the arbitration list and report it via Oly-Exam. The deadline for requests will be 9:00 pm JST, 30 July.

9:00 pm JST, 30 July

The second International Jury meeting will be held via Zoom. This meeting is intended mainly for IChO business. The time slots for arbitration will be also announced. The attendees are requested to follow the Zoom meeting rules noted above.

9:00 am JST, 31 July to 12:00 am JST, 1 August

Arbitration will be conducted via Zoom. The mentors should enter the Zoom meeting for every problem. Mentors are requested to follow the Zoom meeting rules noted above. Arbitration time slots will be arranged according to the local time zones of participating countries.

9:00 am JST, 1 August

The final points scores will be provided to mentors via Oly-Exam.

9:00 pm JST, 2 August

The online closing ceremony will start. Students may attend the ceremony with their avatars. The access point for the ceremony will be announced via email and the website. Medals and certificates will be sent to the participants via surface mail. Certificates can also be sent via email.

## 5. Contact Us

### 5-1. Technical Support

During the Olympiad period, technical issues should be reported to [support@icho2021.org](mailto:support@icho2021.org). The support team will get back to you as soon as possible.

### 5-2. Instant Communication

Telegram will be used for text-based and instant announcements. Information on how to access Telegram will be provided separately. All mentors and invigilators are expected to download the Telegram application on their mobile device or computer

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before IChO2021 to avoid missing any instant information from the Organizing Committee. Telegram display names should consist of a Country Code (three letters) followed by the person's name (e.g., JPN\_Aaa Bbb).