International Chemistry Competition

Final Round Information

Edition of 2025

Final Round Information

Exam Format and Points

The Final Round consists of a fast-paced -minute online exam involving knowledge about chemistry and algorithmic problem-solving skills, in particular related to the Qualification and Semi-Final Round:

▶ Finalists can take the exam on a computer, laptop, or phone via a dedicated online exam portal (`https://intchc.org/exam`).

▶ The exam consists of three different question types (more details follow below).

▶ A teacher must supervise the exam at the participant's school (or the exam must be self-recorded).

▶ There are no negative points for incorrect answers.

▶ The awards and prizes are given to the Finalists with the most points in the Final Round.

▶ If multiple participants have the same score, the points from the Semi-Final Round (and Qualification Round) are used to determine the winners.

Final Exam Information Video

We strongly recommend watching our information video in preparation for the exam. The video explains the procedure and shows you what to expect. You can watch the video here: `https://www.youtube.com/watch?v=IiZY3853UXE`

Question Formats

The Final Round evaluates your reasoning ability, algorithmic problem-solving skills, and chemistry knowledge. You will encounter three types of questions:

• Multiple Choice

▶ Select the correct answer from four options; only one option is correct.

▶ You have minutes to answer the multiple choice question.

▶ Each correct answer is worth point(s).

What is the time complexity of binary search in a sorted array?
A) O(n)
B) O(log n)
C) O(n log n)
D) O(1)

Correct answer: B

Short Answer

▶ Provide your response in a short text field.

▶ You have minutes to provide a short answer.

▶ Each correct answer is worth point(s).

How many bits are in one byte?
Correct answer: 8

Code Answer

▶ Write a program in any supported language (Python, C, C++, or Java) directly in the answer field (which has syntax highlighting).

▶ You have minutes to write your program.

▶ Each correct and fully functional solution is worth point(s).

▶ You may only use standard libraries: no external libraries are allowed.

▶ **Important:** When a programming question appears, you must first select your programming language.

Write a function that returns the sum of all even numbers in a given list.
Example solution (Python):

```
def sum_evens(nums):
return sum(n for n in nums if n % 2 == 0)
```

The answers to all questions will be typed directly into the interface. You do not need to write them on a piece of paper, but you can use a piece of paper for note-taking and calculations.

Teacher Supervision

The exam will take place in the school of each finalist, supervised by a teacher (or the exam can be recorded; see below).

All finalists must select a teacher who agrees to supervise the final exam and meets the following criteria:

▶ Must be employed at an officially recognized school or university (no private tutors).

▶ Must be an active teacher or professor (not retired).

▶ Must not be related to you (no family members).

The teacher must ensure that the finalist does not cheat, use any external help, or open other windows during the exam.

A single teacher can supervise the exam of multiple participants at the same time.

The following actions are considered as cheating:

▶ Use of other electronic devices (e.g., phone, calculator)

▶ Use of any information sources (internet, notes, books)

▶ Opening other tabs, websites, or applications

▶ Receiving help from the teacher or other students

In addition to teacher supervision, we use automated methods to detect cheating, time violations, or unauthorized tool usage. Cheating will result in immediate disqualification.

• Self-Recording Option

For situations in which no teacher is available, you may take the exam without a teacher supervising you. In this case, you or another person (e.g., family or household member) must record you during the exam:

▶ The person must not be a participant of IChC.

▶ The person must film the entire exam (start to finish).

▶ You may stop and restart the video to create multiple short clips if needed.

▶ The video must clearly show:

  – (a) yourself in front of the computer/laptop/phone

  – (b) the exam content on the screen

▶ The video must include sound (from surroundings or voices).

▶ Ensure the camera is fully charged and has sufficient storage.

After the exam, upload the video to a cloud service (e.g., Google Drive, Dropbox), and send the link through your participant login page.

We do not accept videos that:

▶ Do not cover the full exam session

▶ Do not show both you and the screen

▶ Are of poor quality and do not clearly show the exam conditions

Invalid or incomplete recordings will result in disqualification. Importantly, you must not publish or share the video with others. Doing so will also result in immediate disqualification.

To select the self-recording option, you do not need to register beforehand. During the exam time window, open `https://intchc.org/exam`, choose the recording option, and provide details of the person filming.

Exam Procedure

The Final Round procedure takes place in six steps:

1. All finalists have to ask a teacher who agrees to supervise the final exam, or prepare the recoding setup for using the self-recording option.

2. Your teacher has to register online. Please send your teacher this link: `https://intchc.org/teacher-registration`

3. We will review and approve or reject the teacher (within a few days).

4. After approval, the teacher can supervise the final exam with you on the following date and time: Sunday, 26 July 2026, 6–7 pm (your local time)

5. Under the supervision of your teacher, you can start the exam on a computer, laptop, or phone by opening the official exam website: `https://intchc.org/exam` (Note: Participants can open the exam website on either a school or personal computer.)

6. During the exam, your teacher has to take a photo of the exam setting. The pciture must clearly show both participant and screen.

● System Requirements

▶ Please use the latest version of Google Chrome or Firefox to open the exam page.

▶ Ensure a working internet connection during the exam.

▶ Enable JavaScript and cookies for the exam page to function correctly.

● Technical Issues (Internet or Device Failures)

▶ Contact your supervising teacher.

▶ Reopen the exam page and (if needed) log in again to continue.

▶ Take screenshots/photos of any technical problems.

▶ If we detect irregularities, we will contact you.

The results of the Final Round will be announced on Saturday, 1 August 2026.

Questions and Answers

What topics will be covered in the Final Round?

The Final Round evaluates your reasoning ability, algorithmic problem-solving skills, and chemistry knowledge. Questions will cover:

▶ Algorithms and data structures

▶ Computational complexity and time/space analysis

▶ Computer science fundamentals (logic, computational thinking)

▶ Problem-solving approaches and optimization

▶ Content from the Qualification and Semi-Final Round problems

What are the three question types?

The exam includes:

▶ **Multiple Choice:** Select the correct answer from four options (only one is correct)

▶ **Short Answer:** Type a brief response in a text field

▶ **Code Answer:** Write a working program in Python, C, C++, or Java using only standard libraries

Each question type has different time limits and point values.

How can I prepare for the Final Round?

By strengthening your conceptual understanding of chemistry, practicing algorithmic problem-solving under time pressure, reviewing materials from earlier IChC rounds, and practicing coding in your preferred programming language. Visit: https://intchc.org/login

Who can supervise my exam?

Teachers or professors from recognized educational institutions. In special cases, tutors or school staff may be approved.

What tools can I use during the exam?

You may use:

- The official online exam website in a browser

- A blank sheet of paper and a pencil/pen for notes and calculations

For programming questions, you may only use standard libraries (Python, C, C++, or Java). No external libraries or packages are allowed.

How can my teacher register?

They can register here: https://intchc.org/teacher-registration They must upload proof of eligibility (e.g., teaching license or school website profile) and submit a signed teacher form.

What if my teacher is rejected?

Ask another eligible teacher or try to resolve the reason for rejection (e.g., missing documents).

Can IChC refer me to teachers?

No. Please contact teachers from your school or region.

What if two participants have the same score?

The Semi-Final Round score (and if needed, Qualification Round) will be used to determine the winner.

How do I start the exam with the recording option?

Just go to `https://intchc.org/exam` at the designated time and follow the instructions.

Can multiple students at the same school share a teacher?

Yes! A teacher can supervise multiple students at once during the Final Round.

I had technical issues. Can I retake the exam?

No. Ensure a reliable internet connection and working setup. It is not possible to pause, restart, or retake the exam after starting.