

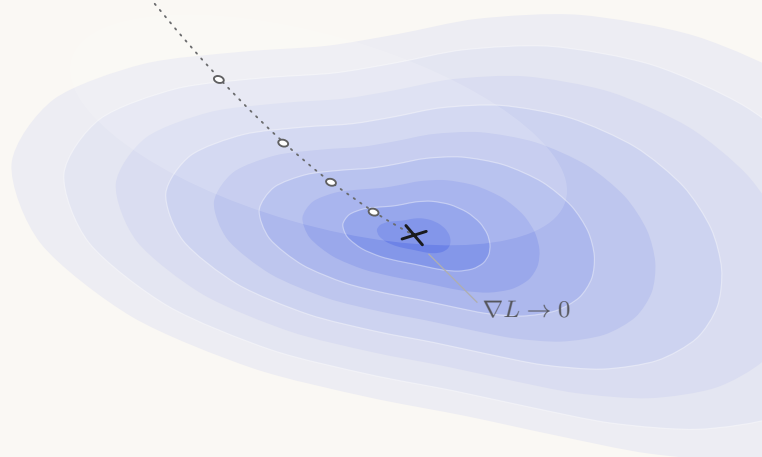


— INTERNATIONAL MACHINE LEARNING COMPETITION

Pre-Final Round

EDITION 2026 ● ● ●

$$\theta_{t+1} = \theta_t - \eta \nabla L(\theta_t) \quad L = -\sum_i y_i \log \hat{y}_i$$



$$\hat{y} = \sigma(Wx + b)$$

Participants who successfully completed the Qualification Round are eligible to participate in the Pre-Final Round. The round will be more challenging and the problems more engaging. In this document you can find details about the following:

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01 SECTION

Problems and Points

The Pre-Final Round consists of a supervised 60-minute exam with three problems, including one that requires you to engage with a real-world research paper. The problems vary in difficulty, points, and domain:

- **A: 1x Basic Problem (4 Points)**

The Pre-Final Round includes one basic problem (lower difficulty).

- **B: 1x Advanced Problem (6 Points)**

The Pre-Final Round includes one advanced problem (higher difficulty).

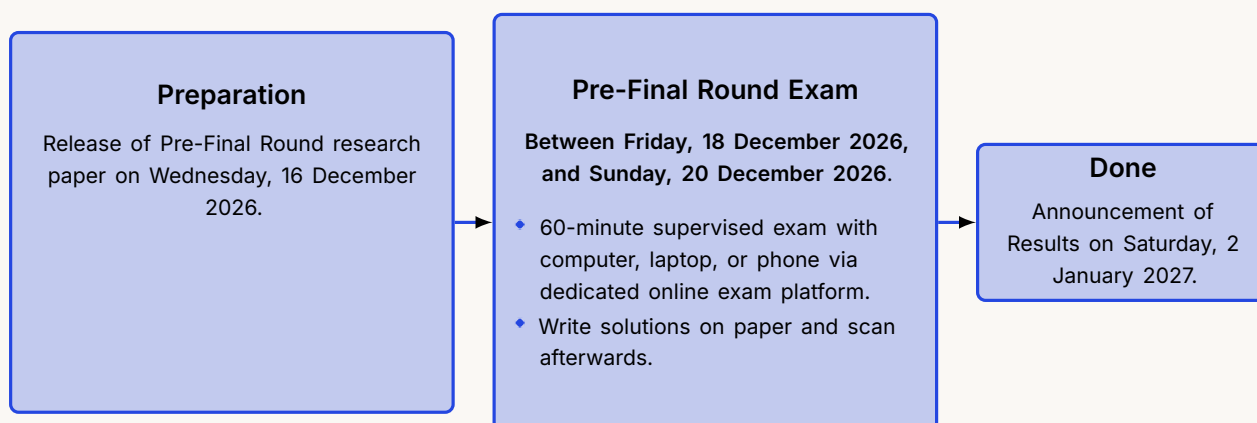
- **C: 1x Research Problem (8 Points)**

The Pre-Final Round includes one research problem: This problem requires you to read one short research paper in preparation for the Pre-Final Round Exam and to learn about recent results in order to solve the problem or questions. This will give you the chance to get in touch with real-world research.

It is possible to reach up to 18 points in total. Participants need to score at least 8/10/12 points (Junior/Youth/Senior) to qualify for the Final Round.

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Pre-Final Round Process



Phase 1: Preparation

This year's Pre-Final Round will begin on **Wednesday, 16 December 2026**, with the release of the research paper you are expected to read and familiarise yourself with. All participants who are qualified and registered (see Section 3 *Registration Details*) for the Pre-Final Round will receive the research paper via e-mail and via their participant account on that day. The paper is in English, but you may use translation tools and AI to help you comprehend the material.

Phase 2: Pre-Final Round Exam

You then have from **Friday, 18 December 2026, 00:01 UTC+0**, until **Sunday, 20 December 2026, 23:59 UTC+0**, to take the 60-minute exam at any point during this period using a computer or phone. The exam must be supervised by a teacher (recommended) or, if no teacher is available, by IMLC using our online supervision system (see Section 4 *Supervision Details*).

To take the Pre-Final Round Exam, you will log in to the dedicated exam platform on a computer, laptop, or phone: <https://imlco.org/exam>. Use your regular IMLC account details to sign in. After a few setup steps, you can start the exam. The Pre-Final Round problems will then appear on your screen. They are not available before this moment or during the preparation phase.

From the moment you start, you have 60 minutes to work on all problems. All problems are shown on one page, and you may answer them in any order. You can move back and forth between questions at any time.

You can bring blank sheets of paper (not more than twenty) and pens (not more than three) to take notes and to write down your solutions. Please use a new sheet of paper for each problem, write the problem number at the top of every page, and use multiple pages for a problem if needed. You are not allowed to bring your own copy of the research paper into the exam. However, the research paper will be available to you directly in the exam interface.

Phase 3: Answer Scan

After the exam finishes, you will have 10 minutes to upload clear scans of your written solutions using your phone. This step is still supervised. You will scan a QR code shown on the exam screen, which will take you to the upload interface. If you use your phone to take the exam, you will need a second phone for scanning and uploading. For this reason, we strongly recommend using a laptop or computer for the exam itself.

Phase 4: Exam Completion

After you have uploaded your written solution, you are done. You will receive educational follow-up information related to the Pre-Final Round research paper in the week after.

The results of the Pre-Final Round will be announced on **Saturday, 2 January 2027**.

03 SECTION

Registration Details

If you succeed in the Qualification Round, you can choose to participate in the Pre-Final Round by registering from your participant account.

The registration deadline for the Pre-Final Round is **Sunday, 13 December 2026**.

This educational opportunity comes with diverse costs, including those for human resources, technical infrastructure, materials and more. While our sponsors cover some of these expenses, we need to ask participants to cover this year's Pre-Final Round registration costs of 12 to make IMLC on an international level possible. There are no other costs for participants throughout this year's competition.

The registration costs are necessary to provide the resources required to run a competition at this scale. This includes the costs for human resources and submission evaluations, particularly of the comprehensive Pre-Final Round, amongst other expenses. You can find detailed information on how the registration costs are used to cover expenses and make IMLC 2026 possible in our information flyer: [Registration Costs Flyer 2026](#)

To register for the Pre-Final Round, please log into your participant account.

Financial Aid Program

Like every year, we offer a limited number of cost waivers and reductions for those participants facing financial hardship, to allow as many students as possible to participate in this year's Pre-Final Round. These reductions are subject to sponsorship availability and may be allocated to specific regions or socio-economic groups.

For more information, please visit: <https://imlco.org/financialaid>

— 04 SECTION

Supervision Details

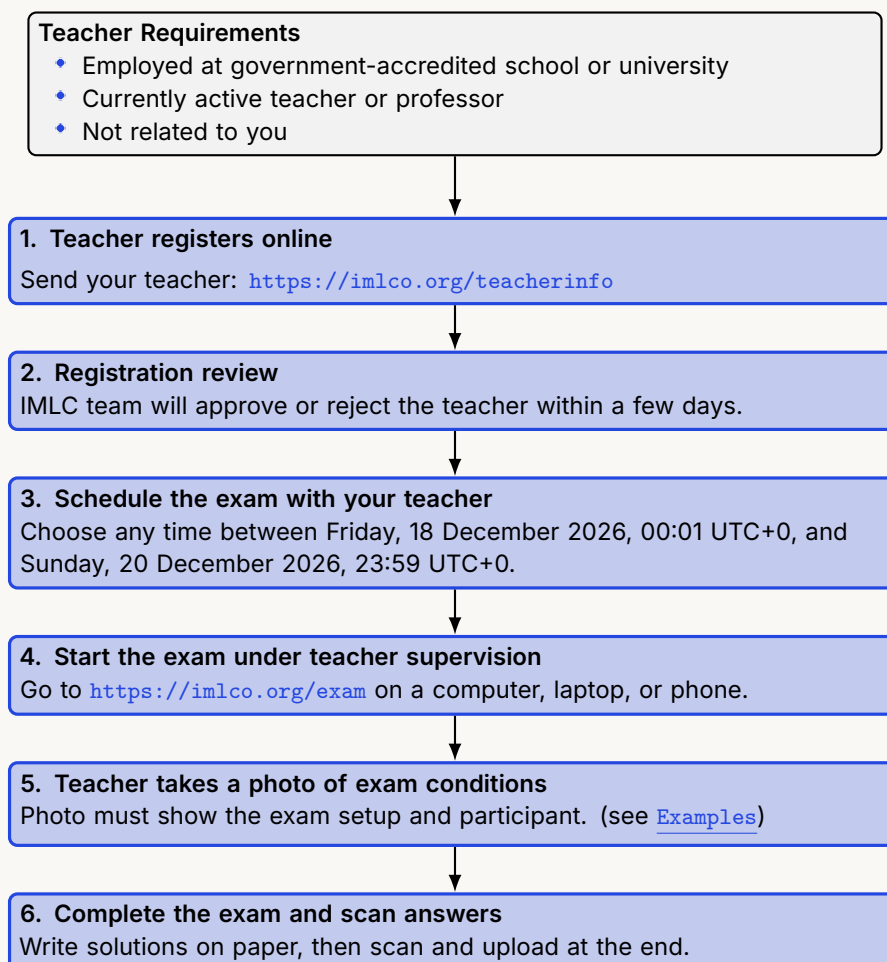
The 60-minute exam must be supervised either

- (Option A) by a teacher or
- (Option B) by IMLC using an online supervision system.

Teacher supervision is the preferred option, as the online supervision system requires a comprehensive setup. If no teacher is available, you may choose the supervision option instead.

Option A: Supervision with Teacher (recommended)

This figure summarizes the steps described on the next page:



Please ask a teacher who meets the following criteria to supervise your Pre-Final Round

Exam:

- Must be employed at a government-accredited school or university (i.e., no private tutors).
- Must currently be an active teacher or professor (i.e., no retired teachers).
- Must not be related to you (i.e., no family members).

A single teacher may supervise the exam of multiple participants at the same time. This is required if there are other Pre-Final Round participants from your school. Next:

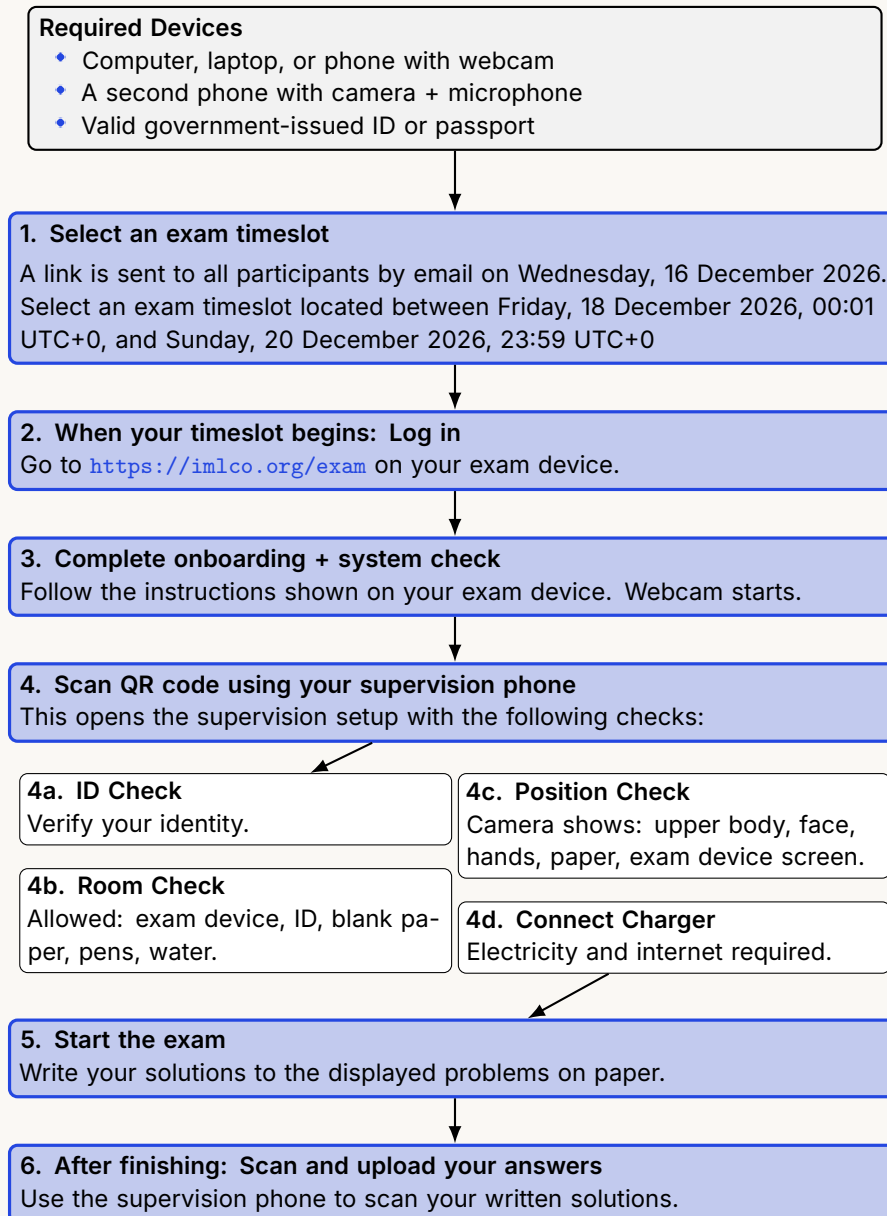
1. Your teacher must register online.
(Send your teacher this link for details: <https://imlco.org/teacherinfo>)
2. We will review the registration and approve or reject the teacher within a few days.
3. After approval, the teacher may supervise your exam at any suitable time between Friday, 18 December 2026, 00:01 UTC+0, and Sunday, 20 December 2026, 23:59 UTC+0.
4. Under teacher supervision, you can start the exam on a computer, laptop, or phone by opening the official exam platform: <https://imlco.org/exam>
5. During the exam, your teacher must take a photo of the exam conditions (see [Examples](#)).

Participants may use either a school computer or a personal device to open the exam platform. The teacher must ensure that the participant does not cheat, use external help, or open other windows during the exam. The following actions are considered cheating:

- Using other electronic devices (e.g., phones, AI tools). Calculators are allowed!
- Using any external information source (e.g., internet, notes, books).
- Opening additional browser tabs, websites, or computer windows.
- Receiving help from the teacher or any other person.

Option B: Supervision without Teacher

If you do not have a teacher who can supervise your exam, you can still participate using the online supervision system. This figure summarizes the steps described on the next page:



To take the exam using the online supervision system, you will need:

- A computer, laptop, or phone with a webcam. (*exam device*)
- A phone with a working camera and microphone. (*supervision phone*)
- A valid government-issued ID card or passport.

All devices must be connected to the internet. If you use a phone as your exam device (i.e., to open the exam platform), you will need a second phone to supervise the exam.

Follow these steps to take the Pre-Final Round Exam:

1. Select an exam timeslot located between Friday, 18 December 2026, 00:01 UTC+0, and Sunday, 20 December 2026, 23:59 UTC+0, prior to your exam.

How?: All Pre-Final Round participants will receive a link to select a timeslot via email and through their participant account together with the preparation material released on Wednesday, 16 December 2026. Timeslots are available every 60 minutes. There is no deadline for selecting a timeslot; however, each timeslot can accommodate a maximum of 50 participants. Timeslots are assigned on a first-come, first-served basis, so we recommend choosing your slot early.

2. When it is your scheduled time, log into the exam platform on your exam device using your IMLC participant account details: <https://imlco.org/exam>
3. Follow the onboarding and system check steps on your exam device. During these steps you will also start your webcam supervision via the interface.
4. After completing the system check, scan the QR code shown on your exam device to set up the supervision system on your phone. Follow the instructions, which include:
 - (a) Conducting an ID and face check to verify your identity.
 - (b) Conducting a room check to verify the exam environment.
(see below for **Requirements for the Exam Environment**)
 - (c) Conducting a position check to verify correct placement of the supervision phone.
(see below for **Requirements for the Supervision Phone Position**)
 - (d) Connect your supervision phone to a charging cable.

Notes: Please note that the supervision device requires a stable internet connection. It is the participant's responsibility to ensure a working internet connection throughout the entire exam.

5. Once the supervision setup is completed, you will be able to start the exam (see Section 2 *Pre-Final Round Process*).
6. After finishing the exam, you will use your supervision phone to scan your answers.

Requirements for the Exam Environment:

- Only your exam device, your ID card, blank sheets of paper, pens, and something to drink are allowed.
- The room must be closed with the door shut.
- No notes, posters, or other materials may be in your field of view.
- No additional phones, monitors, or electronic devices may be present. Calculators are allowed!
- No other person may be in the room.
- No noisy environments.
- No headphones.

You are not allowed to leave the exam environment at any time during the exam or before your answers have been scanned and uploaded. Using the restroom is not permitted once the exam has started.

Requirements for the Supervision Phone Position:

The phone must be placed to your left or right side, slightly behind you, at an angle that allows the camera to clearly capture:

1. Your upper body and partial face.
2. Your hands and the sheets of paper in front of you.
3. The screen of your exam device.

You can find examples of acceptable angles here: [Examples](#). We recommend preparing and testing your exam setup beforehand. You may use stable materials or stands to position your phone at an acceptable angle.

Data Privacy Notice: The data collected during the exam process is used exclusively for exam supervision and will be deleted shortly after the exam data has been evaluated and checked for any irregularities.

05 SECTION

Preparation and Support

While extensive preparation is usually not required, strengthening your overall machine learning knowledge is beneficial. Here are some tips:

- **Review General Domains:**

Familiarize yourself with the typical domains of the Pre-Final Round: Fundamentals, Optimization & Generalization, Deep Learning, Frontier Models, Applications, and Trust-worthy AI.

- **Prepare for Reading Research Papers:**

Some problems involve contemporary research papers. Practice reading and summarizing scientific texts to extract relevant claims, assumptions, and evidence. Exploring research papers from previous Pre-Final Rounds will be particularly helpful.

You can access more resources online:

<https://imlco.org/training>

There is a comprehensive FAQ regarding the Pre-Final Round on our website which clarifies many questions and issues of participants: <https://imlco.org/en/#faq>

Our IMLC team is here to support you! If you have any questions or need support, feel free to reach out at info@imlco.org.