



S1IM0007C (Token- required)

[Gifted Programme] CGMO Training Course

CGMO Training 2025 (Phase I)

Instructor from International Mathematical Olympiad Hong Kong Committee Limited

Application Deadline 17 Jan 2025 12:00 noon

Intended Learning Outcomes

CGMO TRAINING

Phase I

Result Release 21 Feb 2025

Upon completion of the gifted programme, gifted students should be able to:

- 1. broaden mathematical knowledge in a variety of areas on the basis of senior secondary mathematics curriculum
- 2. strengthen the problem solving and higher-order thinking skills
- 3. learn more about the scope of International Mathematical Olympiad Training

Gifted Programme Introduction

- An introductory level comprehensive mathematics programme which covers a wide range of topics
- Broaden students' mathematical knowledge and strengthen their problem-solving skills
- · Consists of 3 phases
- Outstanding students in the programme will represent Hong Kong in China Girls Mathematical Olympiad (CGMO) 2025 held in summer
- This programme is co-organized with International Mathematical Olympiad Hong Kong Committee Limited (IMOHKCL)

Suitable for

- S1 to S6 HKAGE female student members
- Class size: 20

All applicants MUST attend the Aptitude Test held on 15 Feb 2025.

Except for those who have

- a) completed any phase of International Mathematics Olympiad Training, CGMO Training or Introduction to Olympiad Mathematics before **OR**
- b) attended the Aptitude Test held on 11 May 2024, 17 Aug 2024 or 16 Nov 2024

Remarks:

- Due to the limited seats in computer rooms, students who attended the Aptitude Test on 16 Nov 2024 would not be allowed to take the test on 15 Feb 2025. Their results on 16 Nov 2024 will be used for this programme.
- Students will be selected randomly in attending the Aptitude Test if the application is over-subscribed. Only selected students could join the Aptitude Test held on 15 Feb 2025.
- A notification email will be sent on 22 Jan 2025 for the application result of the Aptitude Test.
- All unselected students will be regarded as their application of this programme unsuccessful.



Cantonese with English handouts



🕨 Enquiries 📞 3940 0101 📈 programme@hkage.org.hk

Students should know the basic knowledge of the following:

Quadratic Equations and Functions, Binomial Theorem, Mathematical Induction, Remainder Theorem and Factor Theorem, Arithmetic and Geometric Sequences, Circles and Trigonometry

Aptitude Test

- Students who wish to apply for this programme must take a general aptitude test on 15 Feb 2025 (2:00 p.m. - 4:00 p.m.). Except for those who have attended the Aptitude Test held on 11 May 2024, 17 Aug 2024 or 16 Nov 2024.
- This general aptitude test covers a wide range of topics in mathematics. The purpose of the test is to figure out the applicant's knowledge in different fields of mathematics in order to choose the most suitable students for different programmes. Neither under-qualified nor over-qualified students will be admitted.
- The result of an aptitude test will be valid for one year. If a student takes the test more than once, the latest result will prevail. The following table lists the programmes for which the results of this general aptitude test will apply.

| Programme Date | Code | Programme Name | Aptitude test valid | | | |
|-------------------|-----------|--|---------------------|-------------------|-------------------|-------------------|
| | | | 11 May 2024 | 17 Aug 2024 | 16 Nov 2024 | 15 Feb 2025 |
| Mar 2025 | S1IM0007C | CGMO Training 2025 (Phase I) | \checkmark | \checkmark | \checkmark | \checkmark |
| Mar 2025 | S1IM0008C | Introduction to Olympiad Mathematics 2025 (Phase I) | \checkmark | \checkmark | \checkmark | \checkmark |

Remarks:

- 1. All aptitude tests will only be arranged on the designated dates. No make-up test will be arranged.
- 2. No Calculator is allowed.
- 3. Please bring along with your Identification Card, e.g. HKID, student ID.
- 4. Please arrive at the venue 15 minutes prior to the Aptitude Test begins.

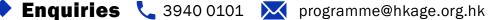
If students who have selected to join the aptitude test are absent without any reasons and prior notification provided, it will result in a lower priority in joining the aptitude test next time when they apply.

Certificate

E-Certificate will be awarded to participants who have:

Attended and completed the scheduled test(s).





Schedule

| Session | Date | Time | Venue | |
|------------------|-------------|--------------------|-----------------|--|
| Aptitude Test | 15 Feb 2025 | 2:00 p.m 4:00 p.m. | Mongkok (TBC) | |
| 1 | 1 Mar | | Room 403, HKAGE | |
| 2 | 8 Mar | | | |
| 3 | 15 Mar | | Room 204, HKAGE | |
| 4 | 22 Mar | | | |
| 5 | 29 Mar | 2:00 p.m 5:30 p.m. | Room 203, HKAGE | |
| 6 | 5 Apr | | Room 204, HKAGE | |
| 7 | 12 Apr | | | |
| 8 | 26 Apr | | Room 403, HKAGE | |
| 9 | 3 May | | Room 105, HKAGE | |

• For any assessment to be held in the programme, no make-up will be arranged.

Sample Notes

- Do there exist 2017 consecutive positive integers, each of which has at least two prime factors?
- 2. Let ABC be an acute triangle and D, E, F be the feet of its altitudes. If P and Q denote the perimeters of \triangle ABC and \triangle DEF respectively, what are the possible values of $\frac{P}{Q}$?