

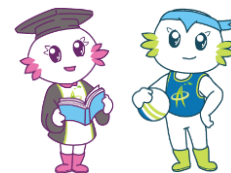


香港資優教育學苑

The Hong Kong Academy for Gifted Education

香港特別行政區政府教育局資助

Subvented by the Education Bureau, the Government of the HKSAR



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S1IM0001C

(Token- required)

[ **Gifted Programme** ]

**Mathematical Olympiad Course (Level I)**

# Maths Ignition – Combinatorics

Instructor from International Mathematical Olympiad  
Hong Kong Committee Limited



**Application Deadline**  
**2 May 2025 12:00 noon**

**Result Release**  
**5 Jun 2025**

## **Intended Learning Outcomes**

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

1. broaden their mathematical knowledge in the topic of Combinatorics on the basis of junior secondary mathematics curriculum;
2. strengthen their problem solving and higher-order thinking skills;
3. learn more about the scope of International Mathematical Olympiad Training.

## ◆ Gifted Programme Introduction

- Maths Ignition is an introductory programme. It is designed as a series of courses on different topics and is developed as a bridging programme to the 'IMO Training' programme.
- 'Maths Ignition- Combinatorics' is the first course of the series. It aims to broaden students' knowledge in Combinatorics on the basis of junior secondary mathematics curriculum through exploration and investigation approach.
- Students might be considered for direct admission to the 'Introduction to Olympiad Mathematics 2026 (Phase I)' (S1IM0008C), an intermediate-level programme offered by IMO Hong Kong Committee Limited (IMOHKCL) if attained:
  - (a) distinction in 2 MI courses; OR
  - (b) merit or above in 3 MI courses; OR
  - (c) completion or above in 4 MI courses
- This programme is co-organized with International Mathematical Olympiad Hong Kong Committee Limited (IMOHKCL)

## ◆ Suitable for

- S1 to S3 HKAGE student members
- Class size: 30
- All applicants MUST attend the Aptitude Test held on 24 May 2025 except for those who have attended the Aptitude Test held on 17 Aug 2024, 16 Nov 2024 or 15 Feb 2025.

\* Not for students who have enrolled in:

1. CGMO Training (Phase I) ( S1IM0007C ) or
2. Introduction to Olympiad Mathematics (Phase I) ( S1IM0008C ) or
3. Any phase of International Mathematics Olympiad (IMO) Training before.

Remarks:

- Due to the limited seats in computer rooms, students who have attended the Aptitude Test on 15 Feb 2025 will not be allowed to take the test on 24 May 2025. Their results on 15 Feb 2025 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 24 May 2025.
- A notification email will be sent on 12 May 2025 for the application result of the Aptitude Test.
- All unselected students will be regarded as their application of this programme unsuccessful.

This programme is same as "Introductory Course in Mathematical Olympiad (Level I): Maths Ignition – Combinatorics (S1IM0001C)" in 23/24 school year.

## ◆ Medium of Instruction

Cantonese with English handouts

## ◆ Aptitude Test

- Students who wish to apply for this programme must take a general aptitude test on **24 May 2025 (1:45p.m. – 3:45 p.m. or 4:00 p.m. – 6:00 p.m.)**, except for those who have attended the Aptitude Test held on 17 Aug 2024, 16 Nov 2024, or 15 Feb 2025.
- 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 next aptitude test is tentatively scheduled on **16 Aug 2025**. 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			
			17 Aug 2024	16 Nov 2024	15 Feb 2025	24 May 2025
Jul 2025	S1IM0001C	Maths Ignition – Combinatorics	✓	✓	✓	✓
Aug 2025	S1IM0002C	Maths Ignition - Geometry	✓	✓	✓	✓
Sep 2025	S1IM0003C	Maths Ignition - Number Theory		✓	✓	✓
Nov 2025	S1IM0004C	Maths Ignition – Algebra			✓	✓
Feb 2026	S1IM0005C	Maths Ignition - Coordinate Geometry				✓
Mar 2026	S1IM0007C	CGMO Training 2026 (Phase I)				✓
Mar 2026	S1IM0008C	Introduction to Olympiad Mathematics 2026 (Phase I)				✓

### 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.**

## ◆ Schedule

Session	Date	Time	Venue
Aptitude Test	24 May 2025	1:45 p.m. – 3:45 p.m. OR 4:00 p.m. – 6:00 p.m.	Mongkok (To be confirmed)
1	18 July 2025	2:00 p.m. – 5:00 p.m.	Room 403, HKAGE
2	21 July 2025		
3	23 July 2025		Room 303, HKAGE
4	25 July 2025		Room 403, HKAGE

- A notification email will be sent on **12 May 2025** for the application result of the Aptitude Test.
- For any assessment to be held in the programme, **no make-up** will be arranged.

## ◆ Certificate

E-Certificate will be awarded to participants who have:

- attended **at least 3 sessions**; and
- completed all the assignments with satisfactory performance

## ◆ Sample Notes

- How many five-digit numbers have 'decreasing digits' (e.g. 43210, 95321)?
- Ann has 3 pieces of orange candies, 4 pieces of strawberry candies and 5 pieces of pineapple candies. She plans to eat 1 piece of candy every day. In how many different ways can she eat the 12 pieces of candies?