



# Introduction to Olympiad Mathematics 2019 (Phase I) (MATS1151)

## Introduction

- An introductory level comprehensive mathematics programme which covers a wide range of topics
- Broaden students' mathematical knowledge and strengthen their problem solving skills
- Students can learn more about the scope of International Mathematical Olympiad Training
- Consists of 2 phases

## Programme

Intermediate Course in Mathematical Olympiad ([Token-required](#))

## Type / Level

## Instructor(s)

Dr. Ching Tak Wing and other trainers

Co-organized with International Mathematical Olympiad Hong Kong Committee (IMOHKC)

Students should know the basic knowledge of the following:

## Pre-requisites

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

## Target

## Participants



- S1 – S6 HKAGE student members
- Class size: 40

All applicants **MUST** attend the **Aptitude Test** held on **11 Feb 2018**.

Except for those who have

1. completed any 2 out of 5 courses in Maths Ignition series

**OR**

2. attended the Aptitude Test held on 3 Feb, 30 Jun, 25 Aug or 17 Nov 2018.

Remarks: Not for student members who have completed any phase of "International Mathematics Olympiad Training" or "Introduction to Olympiad Mathematics (ITOM)" before

## Medium of

## Instruction



Cantonese with English handouts

## Certificate



**Certificate** will be awarded to participants who have:

- ❖ Attending **at least 7 sessions** AND
- ❖ Satisfactory performance in all assessments

## Intended

## Learning

## Outcomes



Upon completion of the programme, participants 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.

## Aptitude Test



Students who wish to apply for this programme must take a general aptitude test on **11 Feb 2019 (4:30p.m. – 6:30p.m.)**.

This general aptitude test consists of 100 multiple choice questions which 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 to be held in **May 2019**. The result of an aptitude test will be valid for 1 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			
			30 Jun 2018	25 Aug 2018	17 Nov 2018	11 Feb 2019
Mar 2019	MATS1121	CGMO Training 2019 (Phase I)	√	√	√	√
Mar 2019	MATS1151	Introduction to Olympiad Mathematics 2019 (Phase I)	√	√	√	√
Jul 2019	MATS1111	Maths Ignition - Combinatorics	√	√	√	√
Aug 2019	MATS1112	Maths Ignition - Geometry		√	√	√
Aug 2019 (tentative)	MATS2330	Trigonometry		√	√	√
Sep 2019	MATS1113	Maths Ignition - Number Theory			√	√
Oct 2019 (tentative)	MATS1411	Numbers Around Our Life			√	√
Nov 2019	MATS1114	Maths Ignition - Algebra			√	√
Feb 2020	MATS1115	Maths Ignition - Coordinate Geometry				√

### 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.

Application  
Deadline

4 Feb 2019

Application Result  
Release Date

22 Feb 2019

If student members withdraw from the programme after the Application Deadline, the token will be deducted.

## Schedule



Session	Date	Time	Venue (HKAGE)
<b>Aptitude Test</b>	<b>11 Feb 2019</b>	<b>4:30p.m – 6: 30p.m</b>	<b>Computer Room, 1/F, Hong Kong Productivity Council</b>
1	9 Mar	2:00p.m. – 5:30p.m.	Room 303
2	16 Mar		
3	23 Mar		
4	30 Mar		
5	6 Apr		
6	13 Apr		
7	27 Apr		
8	4 May		
9	11 May		Room 105

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

Hong Kong Productivity Council: 78 Tat Chee Avenue, Kowloon, Hong Kong [MAP](#)

## Sample Examples for the Programme

1. Do there exist a multiple of 2017 of the form  $111\dots111$ ?
2. If  $a+b+c=10$ , what is the greatest possible value of  $ab^2c^3$ ?

## Enquiries



For enquiries, please contact us at 3940 0101 after language selection, press "1".