



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

E1MAT010C

[\(Token- required\)](#)

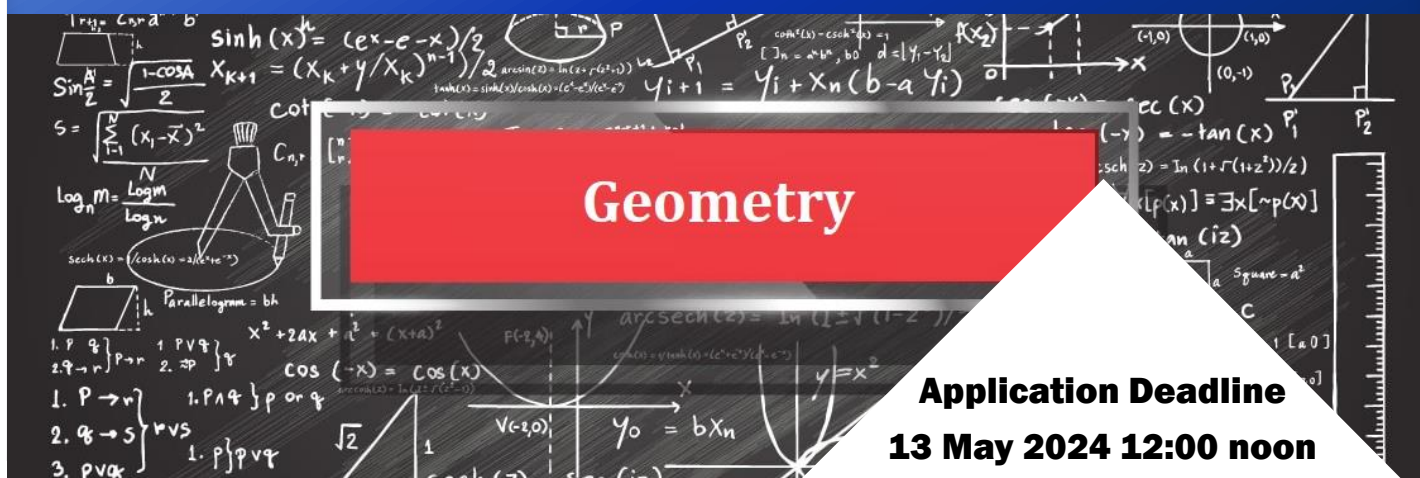
[**Gifted Programme**]

Geometry and Topology Course (Level I)

Perspectives on Junior Secondary Mathematics - Geometry

Mr. Lo Yat Lung

Caritas Fanling Chan Chun Ha Secondary School Mathematics Teacher



Application Deadline
13 May 2024 12:00 noon

Result Release
24 May 2024

Intended Learning Outcomes

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

1. recognise the effect on 2-D shapes after the transformation including reflection, rotation, translation, dilation, etc;
2. identify whether 2 triangles are congruent/similar with simple reasons;
3. inquire geometry knowledge in 2-D space using trigonometric relations;
4. inquire, describe and represent geometric knowledge in 2-D figures using numeric and algebraic relations;
5. describe the beauty of shapes with geometric knowledge and a cultivated sense in aesthetics;
6. create a further study plan in Mathematics.

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

◆ Gifted Programme Introduction

Do you want to inquire advanced mathematics knowledge step by step? Mathematics knowledge is built from foundation. This programme teaches the key geometric knowledge at junior secondary levels in a succinct way to equip participants with the basic knowledge required for learning mathematics at an advanced level. It enables participants to learn mathematics at higher levels according to their own interests and abilities and discover the joy of learning mathematics.

This programme is co-organized with Caritas Fanling Chan Chun Ha Secondary School.

◆ Schedule

Session	Date	Time	Venue
1	15 July 2024 (Monday)	2:00 p.m. – 5:00 p.m.	Room 434 Caritas Fanling Chan Chun Ha Secondary School, 28 San Wan Road, Fanling, N.T. (Map)
2	16 July 2024 (Tuesday)		
3	17 July 2024 (Wednesday)		
4	18 July 2024 (Thursday)		

◆ Suitable for

- P4 to P6 HKAGE student members in 2023/24 school year
- Class size: 30

◆ Pre-requisite

Students should have the basic knowledge in:

- angles related with lines and rectilinear figures
- angles in triangles and polygons
- solving equations
- square root
- determining the type of quadrilaterals

◆ Medium of Instruction

Cantonese with Chinese Handouts

◆ Screening

Please answer the screening question in the online application form.

*The screening question is designed to help the applicant understand the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the question. Only students who can demonstrate motivation and the knowledge of mathematics/probability in the screening question can be enrolled in the programme

◆ Certificate

E-Certificate will be awarded to gifted students who have:

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

◆ Sample Notes

B. 利用座標幾何證明

本部份將會利用座標幾何證明幾何定理

命題 1: 中點定理(mid-point theorem)

ABC 是一個三角形，D 和 E 是 AB 和 AC 的中點，則

(a) $BC=2DE$, (b) $DE\parallel BC$

