



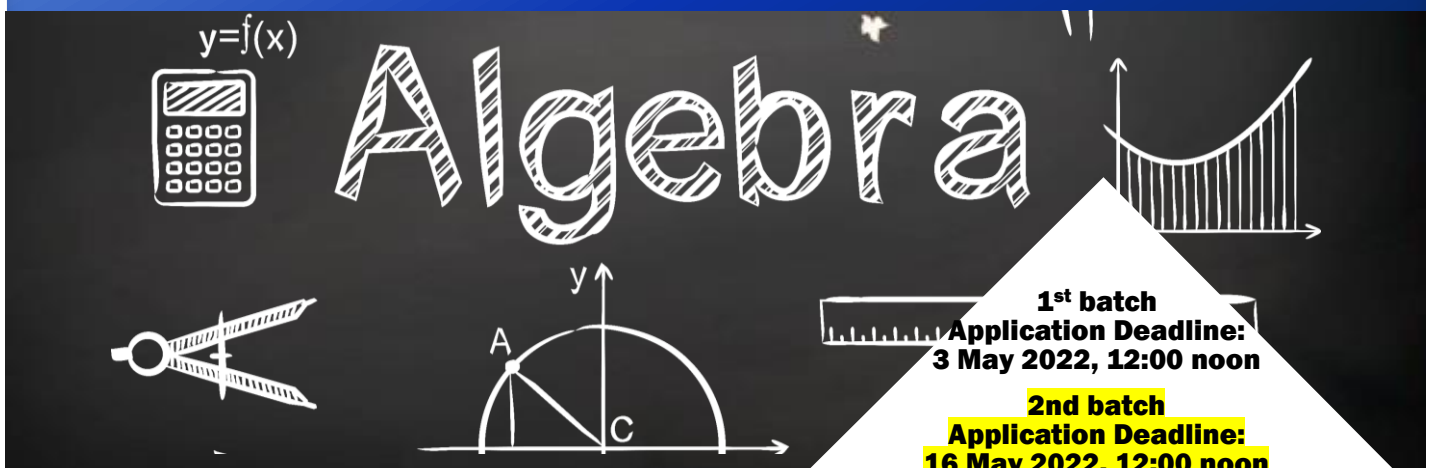
E1MAT015C

(Token- required)

Algebra Course (Level I)

# Math Magic and Algebra Enrichment 1

Mr LAU Hon Cheong  
(Vice Principal of TWGHs S. C. Gaw Memorial College)



**1<sup>st</sup> batch  
Application Deadline:  
3 May 2022, 12:00 noon**

**2<sup>nd</sup> batch  
Application Deadline:  
16 May 2022, 12:00 noon**

**1<sup>st</sup> batch Result Release  
13 May 2022**

**2<sup>nd</sup> batch Result Release:  
25 May 2022**

## Intended Learning Outcomes

Upon completion of the programme, participants should be able to:

1. analyze and solve mathematical problems by using algebraic skills;
2. develop problem solving skills by analyzing mathematical problems that involve factorization and equations;
3. apply algebraic concepts in solving mathematical magic problems;
4. develop collaboration skills through working together and be perseverant when facing difficulties



## ◆ Introduction

Magic is usually performed with props, such as wands, poker cards or coins. Have you heard of mathematical magic with algebra? In this programme, you will learn many interesting properties of algebra and use them to reveal, as well as design, magnificent math magic.

This programme is co-organized with TWGHs S. C. Gaw Memorial College.

## ◆ Schedule

| Session | Date   | Time                   | Venue  |
|---------|--------|------------------------|--|
| 1       | 18 Jun | 9:30 a.m. – 12:30 p.m. | TWGHs S. C. Gaw Memorial College, 7 Tsing Sum Street, Town Centre, Tsing Yi, N.T.<br><br><a href="#">(Map)</a> |
| 2       | 25 Jun |                        |  |
| 3       | 2 Jul  |                        |  |
| 4       | 9 Jul  |                        |  |

## ◆ Target Participants

- P4 to P6 HKAGE student members only in 2021/22 school year
- Class size: 24
- Priority will be given to P4 and P5 student members

## ◆ Pre-requisite

No special prerequisites are needed.

- Knowledge of negative numbers and Excel is an advantage but not a must.
- **This programme is a basic level programme. It is recommended to choose other programmes if students have mastered the relevant knowledge.**

## ◆ 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 / algebra in the screening question can be enrolled in the programme

## ◆ 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

活動(二)：心裡有數

1. 先想一個數 (如：6152894)，然後隨意將每一個數字調位 (如得出：1984265)。數字由 0-9，可以重複。
2. 求兩個數的差，即將大減小 (如  $6152894 - 1984265$ )，得出 4168629。
3. 心裡將得出的數其中一個 0 以外的數字移走，告訴主持人剩下的數是什麼。
4. 主持人知道你心裡移走的是甚麼字。

試利用代數解釋這個魔術背後的原理。(同學可先用 4 位數來試驗。)

## ◆ Reference

- 波沙曼提爾 (2005). 神奇數學 117.: 天下文化
- 安·魯尼 (2013). 數學，為什麼是現在這樣子？：一門不教公式，只講故事的數學課.: 臉譜