香 港 資 優 教 育 學 苑
The Hong Kong Academy for Gifted Education

Algebra Enrichment 2 (MATP2212)

Introduction	Apparently Mona Lisa, nautilus and sunflower bear no relationship to each other, but in fact all of them are related to the Fibonacci Sequence and the Golden Ratio. This course covers the topics below: 1. Introduce essential skills and concepts in algebra such as patterns of various number sequences, arithmetic and geometric sequences, summations, solving linear equation in two unknowns, factorisation and division of polynomials; 2. Enhance students' curiosity in math with algebra and equip them with deeper algebra understanding for their self directed learning. This programme is co-organized with ELCHK Lutheran Academy.
Programme Type / Level	Algebra Course (Level 1) (Token-required)
Instructor(s)	Mr. Alfred Yeung Sai Kit (Mathematics Subject Convenor of ELCHK Lutheran Academy)
Pre-requisite	Students should be able to: ♦ Solve linear equations in one unknown; ♦ Have basic manipulation of polynomials; ♦ Have basic knowledge of coordinate system.
Target Participants	➢ P4 to P6 HKAGE student members ➢ Class size: 30 *** Student members who completed Algebra Course (Level 1): Math Magic and Algebra Enrichment 1(MATP1211) are suggested to apply.** *** Priority will be given to student members who are awarded Certificate of Distinction or Certificate of Merit in Algebra Course (Level 1):Math Magic and Algebra Enrichment 1(MATP1211).**
Medium of Instruction	English with English handouts
Certificate	**E-Certificate** will be awarded to participants who have: ❖ Attended **AT LEAST 3** sessions AND ❖ Completed all the assessments with satisfactory performance
Intended Learning Outcomes	Upon completion of the programme, participants should be able to: 1. Develop critical thinking skills and problem-solving skills via challenging algebra problems and games; 2. Apply inductive reasoning to observe the patterns of number sequences; 3. Demonstrate problem-solving skills by modeling, representing, analysing and generalising simultaneous algebraic equations in a variety of problems; 4. Devise strategies when solving simultaneous algebraic equations and factoring polynomials problems; 5. Manipulate long division of polynomials by applying division algorithm, remainder theorem and factor theorem.
Screening	Please answer the screening question in the online application form. *The screening question is designed to help the applicant understands 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 knowledge of algebra in the screening question can be enrolled in the programme.
Application	**29 Apr, 2019 12:00 n.n** Application Result **10 May, 2019**

Deadline

Release Date

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

Schedule

Session	Date	Time	Venue (HKAGE)
1	15 Jul	9:00 a.m. – 12:00 n.n.	Room 303
2	17 Jul		
3	18 Jul		
4	19 Jul		

Sample Example for the Programme

Solve the simultaneous equations using the method of substitution:

$$\begin{cases} \frac{x}{4}+\frac{y}{3}=7 & ...(1) \\ 2x-\frac{y}{6}=39 & ...(2) \end{cases}$$

Enquiries

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