



Global Mathematics Coding Competition - 2022 Preliminary

Competition Method

A. Organizations :

1. Host : WMIL(World Mind Innovation League)
2. Organizing Committee :
 - (1) Taiwan Olympic Gifted Education Foundation
 - (2) Taiwan Coding Nations
 - (3) Thailand Thai Talent Training
 - (4) Philippines AMSLI Asian MathSa League Inc.
 - (5) Malaysia Edukids Technology Sdn. Bhd.
 - (6) Singapore Asia Math Alliance Pte Lto Lsingapore
 - (7) China Excellent Coding
 - (8) China Shenzhen Wen De Gifted Education Development Co.,Ltd
 - (9) Australia Future World Pty Ltd
 - (10) Brazil Rede POC
 - (11) Hong Kong and Macau First Education Group
 - (12) Myanmar T&H Maths Lentre
 - (13) Cambodia GENC Cambodia
 - (14) Laos Sengdara International Bilingual School
 - (15) Vietnam Fermat Education

B. The organizer of the competition area

Thailand 、 Philippines 、 Malaysia 、 Australia 、 Brazil 、 Myanmar 、 Cambodia 、 Laos 、 Vietnam 、 Taiwan 、 Hong Kong 、 Macau 、 China

C. Competition Goal:

1. Exchange of teaching strategies for international students' in mathematics computing tools exploration.
2. Invite international applied mathematics scholars to develop mathematics solving and coding skills.
3. Share the teaching tools and resources.
4. Handling the International Academic Mathematical Seminar and Responsible for the Problem-Solving Activities.

D. Groups & Code Language

1. Senior High (Grade 10~12) : Python 、 C 、 C++ 、 VB Express
2. Junior High (Grade 7~9) : Python 、 C 、 C++ 、 VB Express 、 Java
3. Elementary (Senior) (Grade 5~6) : Scratch 3.0
4. Elementary (Intermediate) (Grade 3~4) : Scratch 3.0

E. Language Version

1. Python: IDLE 7.2 and above

Download: <https://www.python.org/downloads/release/python-373/>

2. C&C++: Code:blocks(↑ Chinese 10.05 、 English 17.12 version)

Download: <http://www.codeblocks.org/downloads>

3. Visual Basic

Download: <http://www.microsoft.com/express/Downloads/>

4. Scratch 3.0

Download: <https://scratch.mit.edu/download>

F. Competition Date

1. Preliminaries: January 29-30, 2022 Registration deadline: January 12, 2022 Registration fee: HKD280/MOP280

2. International Final: August, 2022

G. Competition mode

Preliminary

Individual Mathematic Group

1. The question type is based on the mathematical below the school year level, but the method and logic of solving the problem are not limited.

- (1) Release the sample questions on Jan. 17.

- (2) Questions and testing time

Group	Testing Time	Question number and question type
Senior High (Grade 10~12)	4 Hours	Performance Evaluation Questions:7
Junior High (Grade 7~9)		Multiple Choice Question:20
Elementary (Senior) (Grade 5~6)		Performance Evaluation Questions:5
Elementary (Intermediate) (Grade 3~4)	3 Hours	Multiple Choice Question:20 Performance Evaluation Questions:3

- (3) Owing to the online testing, please ask the student to go online to take the online test (required to fill out the Declaration form). When the test is started, no photo taken, cannot wearing mask, or talking to the person, and make sure the network all connected through the whole test time. (Only for Grade 3 to 4 allow one parent or teacher to accompany, and must obey to the test rules).

Team Group

1. Elementary Senior & Intermediate Group could form a team of 2~3 people to participate in Team Group Competition. Each student must register for the Individual Competition before participate in Team Group.
2. Team Group is exempt from the registration fee, and not allowed to register Team Group only.
3. Team Group has to choose one topic: Game / Animation.

4. The coding examination topic will be posted on the website on January 21, 2022.
5. Only allowed to use Scratch 3.0 for the chosen topic coding.
6. Please upload the file and send to gmccregister@gmail.com, title as “2022 GMCC Team Group_Game/Animation_Students’ Name”
7. The deadline for submit is January 30, 2022 (GMT standard time 23:59)

H. Registration

1. Register form: Please refer to the Appendix.
2. Registration Deadline - Preliminaries : January 12,2022.
3. Registration Fee : HKD280/MOP280

I. Scoring Method

1. Individual Mathematic Group
 - (1) Accuracy (Answer is correct or not)
 - (2) Skill (System CPU footprint)
 - (3) Efficiency (System CPU execution time)
2. Team Group (Game / Animation)
 - (1) Creative
 - (2) Logic
 - (3) Artwork
 - (4) Skill

J. Awards

1. World Awards-Preliminary(Friendly Competition)

	Individual Mathematic Group	Team Group (Game / Animation)
Gold	Admit one person, Award US\$200	Admit one team
Silver	Admit one person, Award US\$100	Admit two teams
Bronze	Admit one person, Award US\$50	Admit three teams
All the above awards are awarded an electronic certificate file		

2. Competition Area Award-Preliminary(Friendly Competition)

	Individual Mathematic Group	Team Group (Game / Animation)
Gold	Top 5% of candidates in the group	Admit one team
Silver	Top 10% of candidates in the group	Admit two teams
Bronze	Top 20% of candidates in the group	Admit three teams
Merit Prize	Top 25% of candidates in the group	Admit several teams
All the above awards are awarded an electronic certificate file		
All participants are awarded an electronic proof of participation.		

3. Award announcement: Will be uniformly announced on the GMCC official website on February 22, 2022(<http://www.firsteducation.hk>)

K. Others

1. Winners of each division can qualify for the finals.
2. Online competition. After logging, students can see the questions and upload the code for solving the questions.

3. Topic proposition: The question type is based on the mathematical below the school year level, and include some related basic scientific theoretical topics to evaluate the potential of the participants.
4. Scoring Criteria: According to the scores of each question, the correct answer will get the score; the ranking principle is that the highest total score is in front, and the same total score with less time-consuming will be in front.
5. If there are any uncovered issues will be announced on the website.