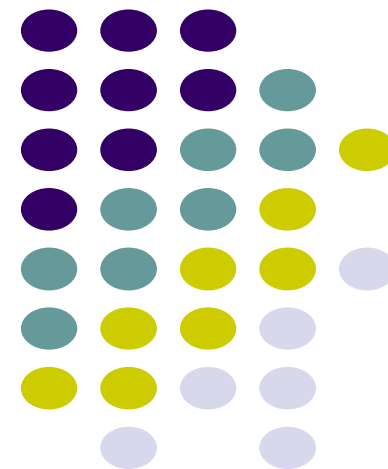


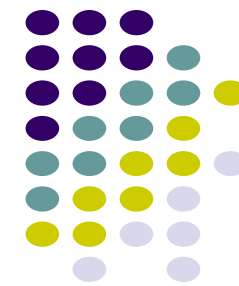
香港數學競賽

鄭仕文

2025年11月12日



第四十三屆香港數學競賽 (HKMO) (2025/26)



截止報名日期：9 / 1 / 2026

初賽比賽日期：24 / 1 / 2026

<https://forms.gle/3QFB3ZC5PE87x4hb9>





香港數學競賽

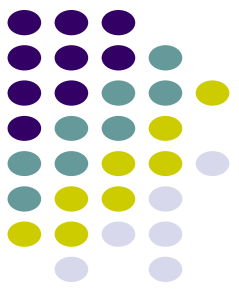
香港數學競賽是由教育局數學教育組及香港教育大學(前稱香港教育學院)數學與資訊科技學系聯合舉辦。比賽旨在發展學生的數學能力和培養他們對數學的興趣。

第 43 屆香港數學競賽 (2025/26)

● 學校通告及比賽規則 [PDF](#)

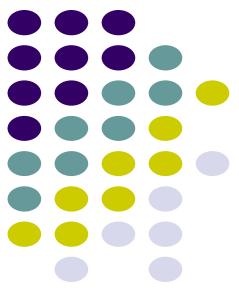
● 參賽表格 [網上表格](#)

● 籌備委員會委員名單 [PDF](#)



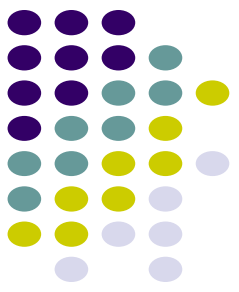
香港數學競賽規則

- 初賽－個人項目
- 初賽－團體項目(I) (25 分)
- **初賽－團體項目(II) (10 分)**
- 晉級－個人項目 (80 分) + 團體項目 (35 分)



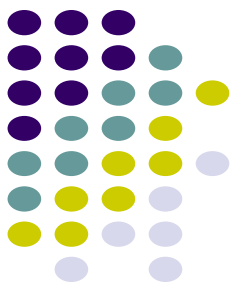
初賽 — 個人項目

- 解答15條問題
 - 甲部佔10題
 - 乙部佔5題
- 甲部的每一正確答案可得1分
- 乙部的每一正確答案可得2分
- 每人可得之最高積分為20分
- 每隊可得之最高積分為80分



初賽 — 團體項目 (I)

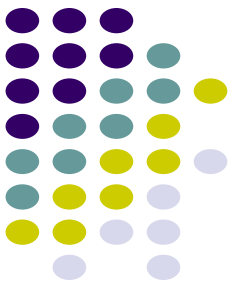
- 解答10條問題
 - 甲部佔 5 題
 - 乙部佔 5 題
- 甲部的每一正確答案可得 2 分
- 乙部的每一正確答案可得 3 分
- 每隊可得之最高積分為 25 分



初賽 — 團體項目 (II)

- 解答2條問題，每一題可得5分
- 包含數學建模元素
- 每隊可得之最高積分為 10 分

報名程序



Google Form: <https://forms.gle/3QFB3ZC5PE87x4hb9>

The 43rd Hong Kong Mathematics Olympiad

Application Form

robertsmcheng@gmail.com [切换帳戶](#)

未共用的項目

* 表示必填問題

Enquiry
For any queries, please contact Mr CHENG Sze-man of Mathematics Education Section of Education Bureau at robertcheng@edb.gov.hk.



報名程序

- 新增：個人私隱條例聲明



Personal Data Collection Statement

Purpose of Collection

1. The personal data provided by you in this form will be used by the EDB for one or more of the following purposes:

- (a) Activities relating to the processing, authentication and counter-checking of the **enrollment for the event**;
- (b) Activities relating to **matching of the personal data** with the database of other relevant Government bureaux / departments in connection with the processing, authentication and counter-checking of the enrollment mentioned in (a) above;
- (c) Activities relating to **matching of the personal data** within the database of EDB for purposes of verifying / updating records of the EDB;
- (d) Activities relating to **training and development** including processing the CPD hours as needed;
- (e) Activities relating to compilation of **statistics, research** and **Government publications**; and
- (f) Activities relating to the **administration and enforcement of rules and regulations** including the Education Ordinance (Cap. 279), its subsidiary legislation (such as the Education Regulations and the Grant/Subsidized Schools Provident Fund Rules) and the Codes of Aid.

報名程序

● 新增：個人私隱條例聲明



2. The provision of personal data required by this form and during the processing of this form is obligatory. In the event that you do not provide those personal data, we may not be able to handle or further process the enrollment.

Classes of Transferees

3. The personal data you provide will be made available to persons working in EDB. Apart from this, they may be transferred or disclosed to the parties or in the circumstances listed below:

- (a) Other Government bureaux and departments for the purposes mentioned in paragraph 1 above;
- (b) The school in which the form relates for the purposes mentioned in paragraph 1 above;
- (c) Personnel, agent, service provider or organizations, including the event organiser, engaged by EDB to provide services or advice for purposes mentioned in paragraph 1 above;
- (d) Where you have given your prescribed consent to such disclosure; and
- (e) Where such disclosure is authorised or required under the law or court order applicable to Hong Kong.

Access to Personal Data

You have the right to request access to and correction of your personal data held by EDB. Request for access or correction of personal data should be made in writing to Senior Curriculum Development Officer (Mathematics)1, Mathematics Education Section, 4/F., Kowloon Government Offices, 405 Nathan Road, Yau Ma Tei, Kowloon.

報名程序

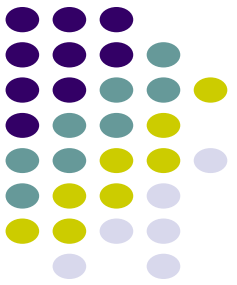
- 填寫所有必填（有*）項目
- 如只有4位參賽同學，不用填任何關於第5及第6位同學的資料

圖片標題

Information of Student No. 5

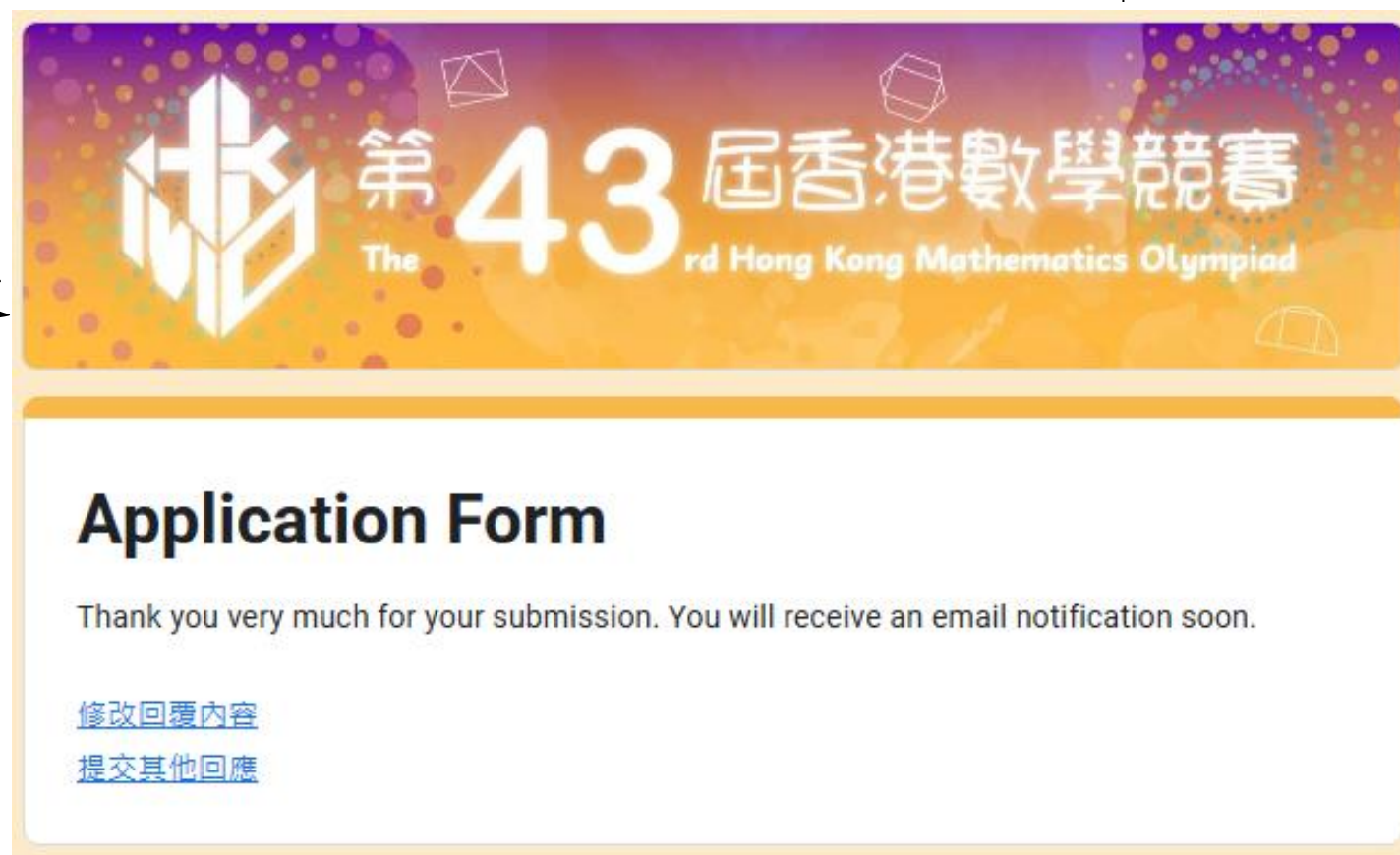
圖片標題

Information of Student No. 6



報名程序

- 完成後請按「提交」鍵
- 你會見到此畫面
- 你可以修改已提交的內容



報名程序

- 你亦會收到電郵通知已提交的資料
- 必須覆核你提交的資料是否正確
- 不要刪除此郵件，因為.....

29/10/2024 (週二) 12:34

□ HKMO (2024/25) <hongkongmathsolympiad@gmail.com>

Application Form - Thank you for your submission

收件者 □ hongkongmathsolympiad@gmail.com

副本 ■ Robert SM CHENG/EDB

Internet Email

如果這個訊息的顯示有任何問題，請按一下這裡，在網頁瀏覽器中檢視。

Dear Ms ,

Thank you very much for your application to the 42nd Hong Kong Mathematics Olympiad (HKMO) (2024/25).

Below please find the information you have submitted for your record.

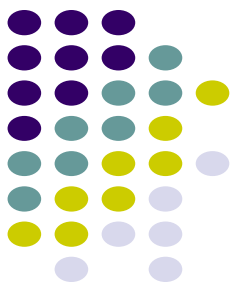
School Name a

School Telephone No. a

School Fax No. a

School Address a





報名程序

- 在郵件最尾部分你會**見到一條hyperlink**，在截止報名前的任何時間，你都可以點擊這個連結找回你已提交的申請表，作出修改

You may click the link to edit the original form: https://docs.google.com/forms/d/e/1FAIpQLSeSYftqg0XAOdNR308wGipL3zeMoGAeHrS1gY1rtaubJuY2aw/viewform?edit2=2_ABaOnufhe_GnEhF18enwlkGUni4s2eguKhdZw23Zt_qkQUahzSExLFIwO-U2RNAJGrNQ8hA

For any queries, please feel free to contact me at 2153 7436 or robertcheng@edb.gov.hk.

- 截止日期：2026年1月9日（星期五）
- 初賽比賽日期：2026年1月24日（星期六）

新安排

- 所有跟比賽相關信息將以 email 通知
- 領隊教師必須提供有效的 email 地址，並須定期查看郵箱

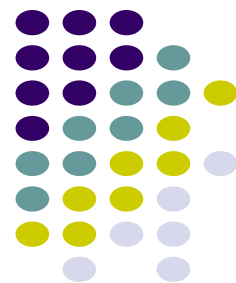
Dear [teacher-in-charge],

On behalf of the Organising Committee, I would like to thank you for your keen interest in the Hong Kong Mathematics Olympiad (HKMO).

The Heats of the competition will be held on **24 January 2026 (Saturday)** from 8:45 a.m. to 12:00 noon. Your school ID is **HKI-01** and your school has been allocated to **Hong Kong Island Region (HKI)** centre. The centre address is

**The True Light School of Hong Kong,
50 Tai Hang Road, Hong Kong.**

Please note that question papers for past HKMO Heats and Finals have been uploaded onto the web site of the Mathematics Education Section for your reference. The relevant web page is <https://www.edb.gov.hk/en/curriculum-development/kla/ma/res/sa/hkmo-index.html>.



新安排

- 學生編號
- 8位數 43xxxxxx
- 尾碼6位數字是隨機編配，不是順序遞升或遞減

Student participants:

[illegible]

新安排

- **必須**列印 Student ID slip
- 賽前**讓每位參賽**學生取得自己的ID slip



The 43rd HKMO (2025/26) Student ID Slip

School:	
School ID:	
Student Name (E):	
Student Name (C):	
Student ID:	

School:	
School ID:	
Student Name (E):	
Student Name (C):	
Student ID:	

School:	
School ID:	
Student Name (E):	
Student Name (C):	
Student ID:	

School:	
School ID:	
Student Name (E):	
Student Name (C):	
Student ID:	



新安排

- 所有考卷**只可寫上學生編號**
- 任何考卷如發現學生姓名，**一律不予評分**

43rd Hong Kong Mathematics Olympiad (2025/26)
Heats – Individual Event
Answer Sheet

School : _____

School ID : _____

Student ID : _____

Seat Number : _____

43rd Hong Kong Mathematics Olympiad (2025/26)
Heats – Group Event (I)
Answer Sheet

School : _____

School ID : _____

Student ID : (1) _____ (2) _____

(3) _____ (4) _____



新安排

- 所有考卷只可寫上學生編號
- 任何考卷如發現學生姓名，**一律不予評分**
- 學生編號是隨機編配，並非順序，切勿亂填，否則**不予評分**

43rd Hong Kong Mathematics Olympiad (2025/26)
Heats – Individual Event
Answer Sheet

School : _____

School ID : _____

Student ID : _____

Seat Number : _____

43rd Hong Kong Mathematics Olympiad (2025/26)
Heats – Group Event (I)
Answer Sheet

School : _____

School ID : _____

Student ID : (1) _____ (2) _____

(3) _____ (4) _____



1. The price of a printer ink cartridge at Tech World is \$250 each. If a customer buys a minimum of 5 cartridges, a discount of \$150 is applied to the entire purchase.
 - a) Write a function, $f(x)$, that models the total cost of buying x cartridges at Tech World.
 - b) Find the total cost of buying 8 cartridges at Tech World.

初賽 [團體項目 (II)

The price of the same cartridge at Office Plus is \$220 each. A customer must buy a minimum of 5 cartridges. The total cost at Office Plus is cheaper than Tech World when $x > k$.

c) Find the minimum value of k .

初賽 [團體項目 (II)

1. The price of a printer ink cartridge at Tech World is \$250 each. If a customer buys a minimum of 5 cartridges, a discount of \$150 is applied to the entire purchase.

a) Write a function, $f(x)$, that models the total cost of buying x cartridges at Tech World.

$$f(x) = \begin{cases} 250x & \text{if } x < 5 \\ 250x - 150 & \text{if } x \geq 5 \end{cases}$$

b) Find the total cost of buying 8 cartridges at Tech World.

$$f(8) = 250(8) - 150 = 1850$$

初賽 [團體項目 (II)

The price of the same cartridge at Office Plus is \$220 each. A customer must buy a minimum of 5 cartridges. The total cost at Office Plus is cheaper than Tech World when $x > k$.

c) Find the minimum value of k .

Define the cost function for Office Plus, $g(x)$

For $x \geq 5$, $g(x) = 220x$

For $x > k$, $g(x) < f(x)$

$$220x < 250x - 150$$

$$x > 5$$

The minimum value of k is 6.

初賽 [團體項目 (II)]



2. A marine biologist introduces 50 of a new species of crab to a secluded, rocky shore ecosystem. The population size, C , is monitored and its growth can be approximately modelled by the differential equation, $\frac{dC}{dt} = 0.5C$, where t is time measured in years.

Write down 5 key assumptions of this mathematical model.

初賽 [團體項目 (II)]

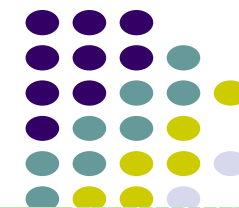


The model $\frac{dC}{dt} = 0.5C$ represents exponential growth. Its key assumptions are:

1. Constant Growth Rate [恆定成長率] : The per capita growth rate (0.5 per year) is constant. This implies that the birth and death rates are stable over time and are not affected by the population's density or age structure.
2. Continuous Growth and Reproduction [持續生長和繁殖] : The model assumes that reproduction happens continuously throughout the year, not in specific breeding seasons.
3. Closed System [封閉系統] : There is no immigration of new crabs into the area or emigration of the existing crabs out of the rocky shore.

初賽 [團體項目 (II)]

4. No Predators or Diseases [無掠食者，無疾病] : The ecosystem is assumed to have no natural predators (e.g., birds, fish), parasites, or diseases that could cause mortality in the crab population.
5. Unlimited Resources [無限資源] : The rocky shore provides an endless supply of food (e.g., algae, detritus), shelter, and space for the crabs, with no competition for these resources.
6. No Time Delay [無時間延遲] : It ignores delays such as the time it takes for a crab to mature to reproductive age.
7. Homogeneous Population [同質人口] : All crabs are considered identical in terms of their reproductive potential and survival rate; age, sex, and genetic differences are not accounted for.



H K M O

Hong Kong Mathematics Olympiad Past Paper (Volume 1)

香港數學競賽
歷屆比賽題目 (第一輯)

1983-1997



H K M O

Hong Kong Mathematics Olympiad Past Paper (Volume 2)

香港數學競賽
歷屆比賽題目 (第二輯)

1997-2008



H K M O

Hong Kong Mathematics Olympiad Past Paper (Volume 3)

香港數學競賽
歷屆比賽題目 (第三輯)

2008-2022



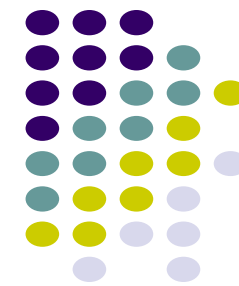
下載



[https://drive.google.com/drive/folders/
1aVvKhNkI8EvB3geOGX212kGnBXGe8ce
Q?usp=sharing](https://drive.google.com/drive/folders/1aVvKhNkI8EvB3geOGX212kGnBXGe8ceQ?usp=sharing)



第四十三屆香港數學競賽 (HKMO) (2025/26)



截止報名日期：9 / 1 / 2026

初賽比賽日期：24 / 1 / 2026

<https://forms.gle/3QFB3ZC5PE87x4hb9>





謝謝



鄭仕文 CHENG Sze-man, Robert

電話：2153 7436

電郵：robertcheng@edb.gov.hk