香港電腦奧林匹克競賽
Hong Kong Olympiad in Informatics

HKOI Final Event Contestants' Handbook
HKOI 決賽參賽者手冊

HKOI 2025/26

Preparation
事先準備

Preparation 事先準備

Required documents 必需文件

Hong Kong Identity Card 香港身分證	AND 及	Student ID Card 學生證
Substitute 替代品		
Valid Hong Kong Passport 有效特區護照		Student Handbook 學生手冊

Required supplies 必需用品

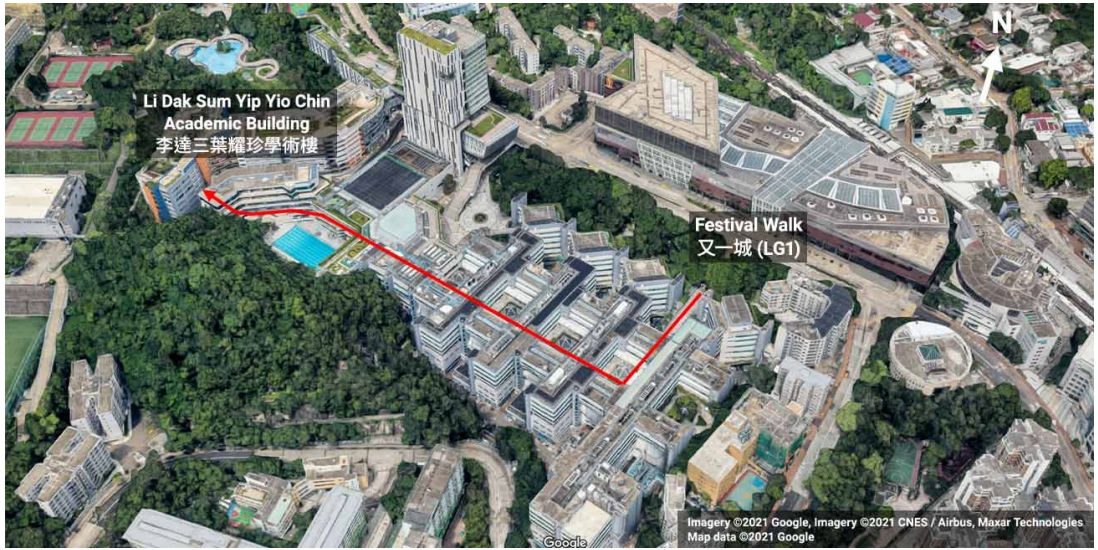
- Stationery 文具

CityU Guest QR Code 香港城市大學訪客 QR Code

Required: For entering CityU campus
必需: 用於進入香港城市大學

To Reporting Venue
前往報到地點

Access by Festival Walk (LG1)
經又一城 (LG1)



路途遙遠，請預留充裕時間
The venue is far away. Please allow sufficient time for travel.

Reporting Venue 報到地點

All participants should report at G/F Foyer, Li Dak Sum Yip Yio Chin Academic Building.

所有參賽者均須前往李達三葉耀珍學術樓地下 (G/F) 大堂報到。

Reporting Procedure
報到程序

Reporting Procedure 報到程序

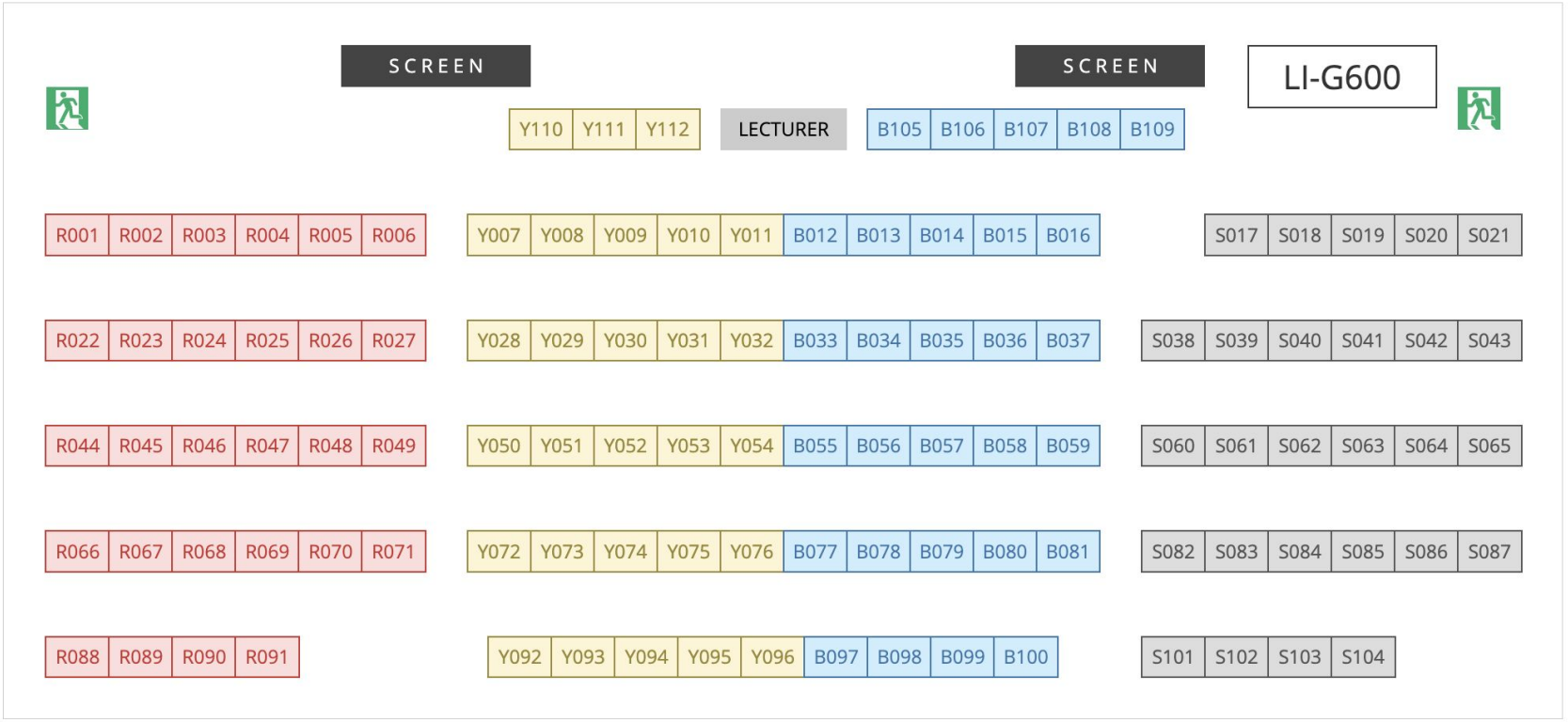
Contestants should simply wait patiently once they arrive at the reporting venue DO NOT proceed to the competition venue directly.
到達報到地點後，參賽者只需在該處靜候，
請勿直接前往比賽地點。

When the competition venue is ready for entering, contest staff will make an announcement to direct the contestants to enter the venues. If necessary, students should use the washroom before entering the venue.
待比賽場地準備就緒後，工作人員將會作出宣佈，並指引參賽者進入場地。如有需要，參賽者應在進入比賽場地前使用洗手間。

Reporting Procedure 報到程序

Contest venue door closes at 9:00 a.m. (Senior Group) / 2:00 p.m. (Junior Group) sharp. Students who do not enter the competition venue by that time will be **disqualified**.

比賽場地大門將於上午9時正（高級組）/ 下午2時正（初級組）準時關上，
如屆時學生仍未進入比賽地點，將被**取消資格**。


SCREEN
SCREEN
LI-G600
Y110 Y111 Y112
LECTURER
B105 B106 B107 B108 B109
R001 R002 R003 R004 R005 R006
Y007 Y008 Y009 Y010 Y011 B012 B013 B014 B015 B016
S017 S018 S019 S020 S021
R022 R023 R024 R025 R026 R027
Y028 Y029 Y030 Y031 Y032 B033 B034 B035 B036 B037
S038 S039 S040 S041 S042 S043
R044 R045 R046 R047 R048 R049
Y050 Y051 Y052 Y053 Y054 B055 B056 B057 B058 B059
S060 S061 S062 S063 S064 S065
R066 R067 R068 R069 R070 R071
Y072 Y073 Y074 Y075 Y076 B077 B078 B079 B080 B081
S082 S083 S084 S085 S086 S087
R088 R089 R090 R091
Y092 Y093 Y094 Y095 Y096 B097 B098 B099 B100
S101 S102 S103 S104

Before Start
開始前

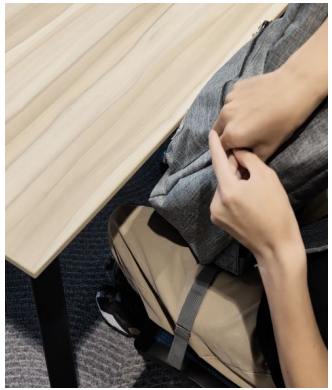
Before Start 開始前

Check the name and school displayed on the screen to confirm you are sitting on the correct seat. Do not touch the computer until the contest starts.

請檢查螢幕上的姓名和學校，確認您的座位無誤。比賽開始前嚴禁接觸電腦。

Before Start 開始前

Turn off and put all unauthorized articles in your bag.
Calculators are NOT allowed. Zip up your bag and put it under the chair.
將所有違禁品關上並放入袋內，不得使用計數機。
將袋的拉鍊關上，然後將袋放在椅子下。



Before Start 開始前

Put your HKID and Student ID card on the table.

You should only have basic stationery, HKID, Student ID on the table.

將香港身分證及學生證放在桌上。

桌上應只有基本文具、香港身分證及學生證。

Before Start 開始前

You may bring one personal keyboard and one mouse for use in the competition.
你可自備一個鍵盤及一隻滑鼠於比賽時使用。

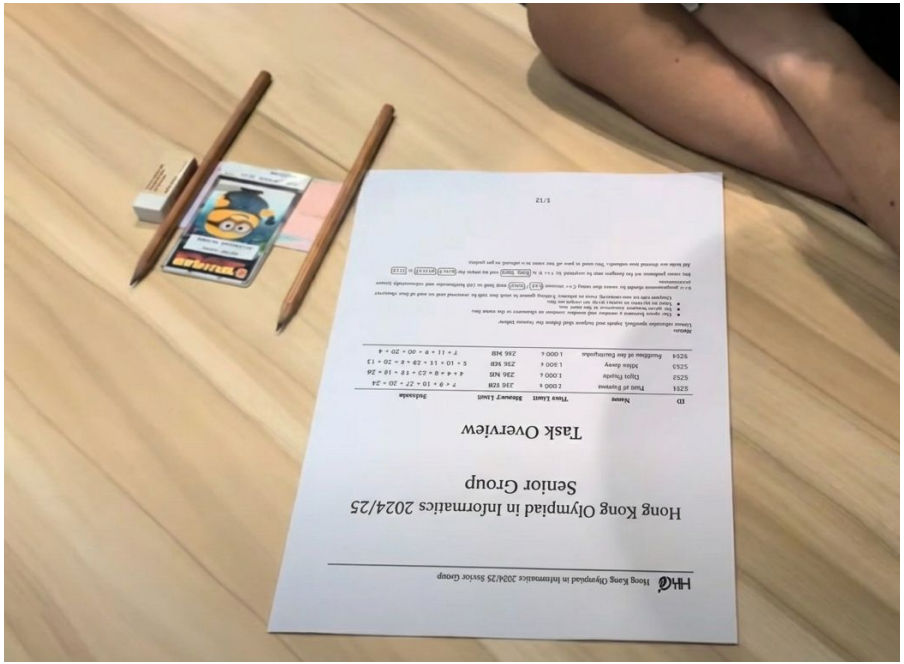
Not allowed **不可**使用:

- Wireless devices 無線鍵盤/滑鼠
- Devices that contain programmable keys 含可編程按鍵
- Devices that require installation of drivers 需安裝驅動程式之鍵盤/滑鼠
- Mechanical keyboards fitted with “blue” switches (or equivalent) 裝有「青軸」(或等同)的機械鍵盤

Before Start 開始前

Contestants will only receive the printed question paper in the language version selected in the nomination form.
參賽者只會收到在提名表格中選擇的語言版本的紙本試題。

Do not touch the paper until you are told to do so
作出宣佈前不得接觸試卷。

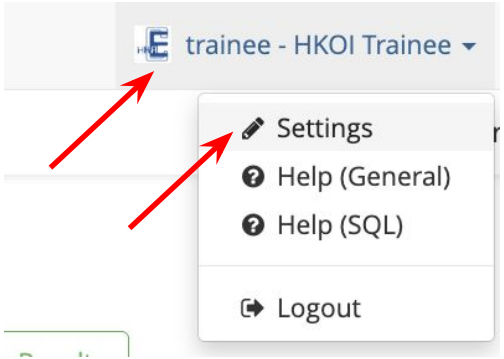


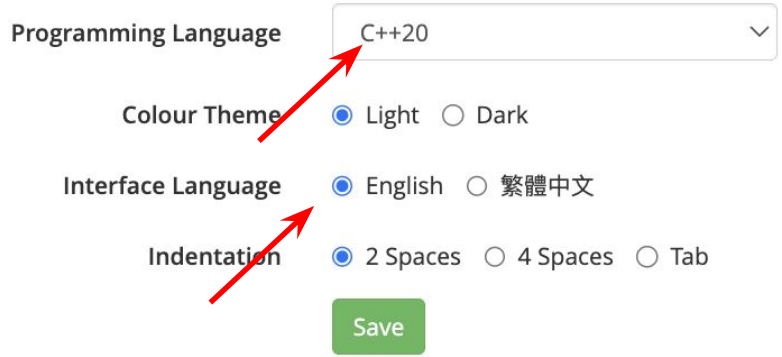
During the Contest
開考後

Settings 設定

If needed, you can change your default programming language and interface language in the "Settings" page.

如有需要，可在「設定」頁更改預設編程語言及介面語言。

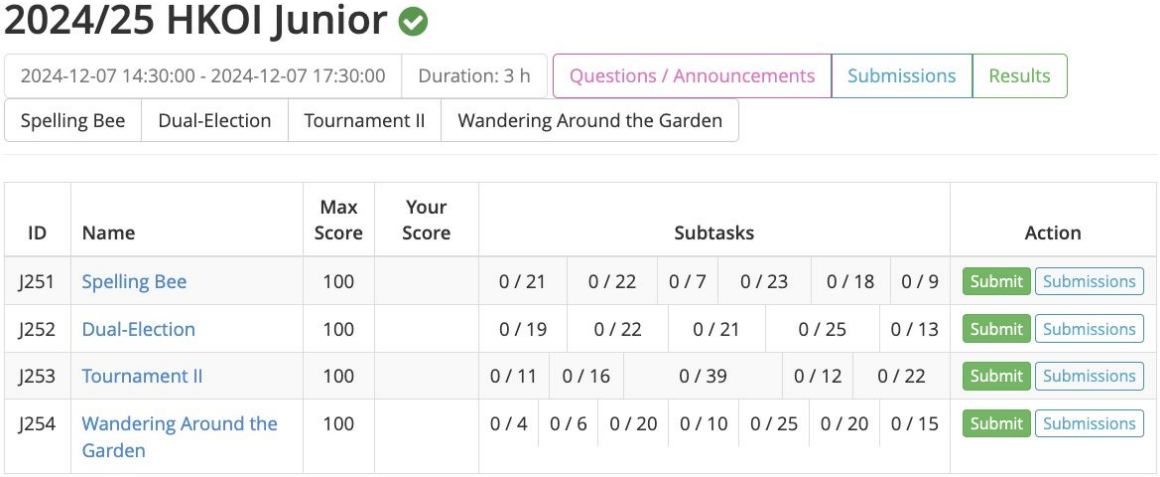




Overview 綜覽

During the contest, the contest page will show the 4 contest tasks, and the score distribution of the subtasks.

比賽開始後，比賽介面會顯示 4 題比賽題目，及每題子任務的分數分佈。



2024/25 HKOI Junior

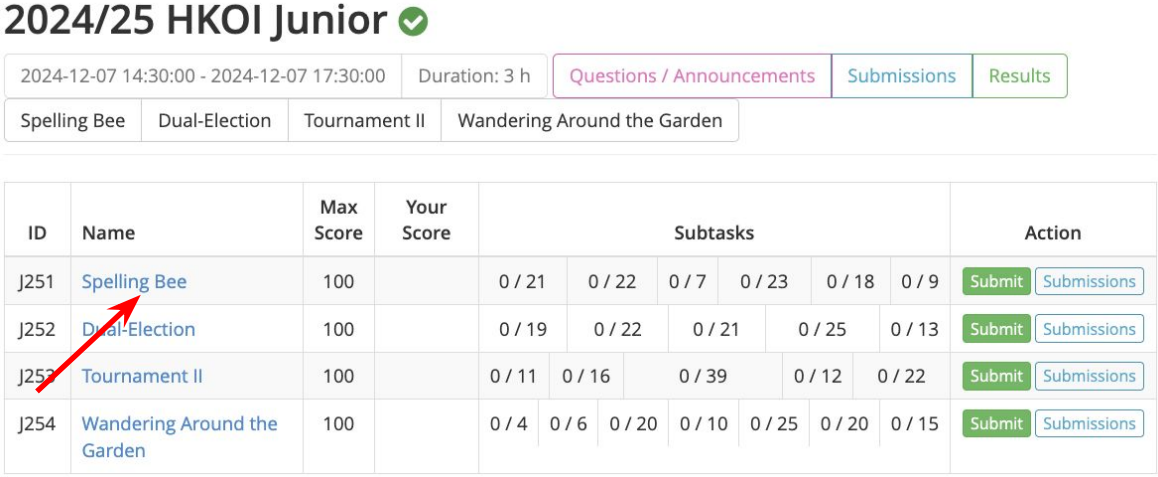
2024-12-07 14:30:00 - 2024-12-07 17:30:00 | Duration: 3 h | Questions / Announcements | Submissions | Results

Spelling Bee | Dual-Election | Tournament II | Wandering Around the Garden

ID	Name	Max Score	Your Score	Subtasks	Action
J251	Spelling Bee	100		0 / 21, 0 / 22, 0 / 7, 0 / 23, 0 / 18, 0 / 9	Submit, Submissions
J252	Dual-Election	100		0 / 19, 0 / 22, 0 / 21, 0 / 25, 0 / 13	Submit, Submissions
J253	Tournament II	100		0 / 11, 0 / 16, 0 / 39, 0 / 12, 0 / 22	Submit, Submissions
J254	Wandering Around the Garden	100		0 / 4, 0 / 6, 0 / 20, 0 / 10, 0 / 25, 0 / 20, 0 / 15	Submit, Submissions

Overview 綜覽

Click the task title to enter the task statement page.
按下題目名稱進入題目頁面。



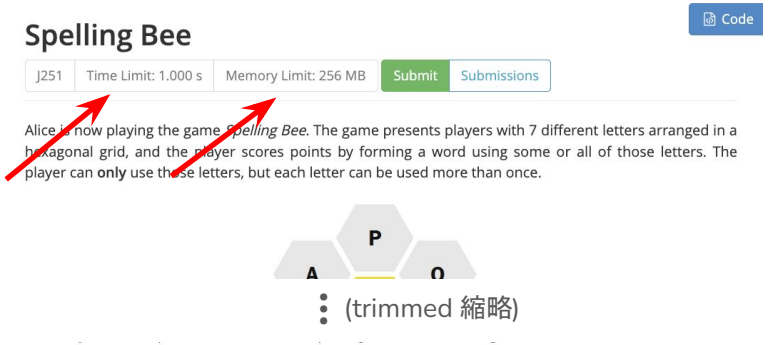
Task 題目

In general, a coding task requires the solution code to be correct and efficient (runs within the time/memory limit).

一般來說，編程題目要求解答程式碼必須正確且有效率（即在時間與記憶體限制內執行完成）。

Entry level tasks focus on the correctness of the code, while harder tasks test on both.

較淺的題目通常著重程式碼的正確性，而較難的題目則會同時考驗這兩點。



Code

Spelling Bee

J251 | Time Limit: 1.000 s | Memory Limit: 256 MB | Submit | Submissions

Alice is now playing the game *Spelling Bee*. The game presents players with 7 different letters arranged in a hexagonal grid, and the player scores points by forming a word using some or all of those letters. The player can **only** use those letters, but each letter can be used more than once.

P

A O

(trimmed 縮略)

will be. Can you write a checker for her to calculate the score of the word, or determine if the word is invalid?

INPUT

The first line of input consists of a single uppercase letter C, the center letter in the hexagonal grid.

The second line of input consists of a string H of 6 uppercase letters, the other letters in the hexagonal grid. It is guaranteed that all 7 letters in the hexagonal grid are distinct.

The third line of input consists of a string W of uppercase letters, representing Alice's word. Alice's word only consists of the letters in the hexagonal grid. It is not guaranteed that Alice's word is a valid English word, and you are not required to validate this.

OUTPUT

If the word is rejected, output the reason of rejection, which should either be `TOO SHORT` or `NO CENTER LETTER`, the checking is case-insensitive.

Otherwise, output a single integer: the score (in points) of the word computed according to the rules stated above.

SAMPLE TESTS

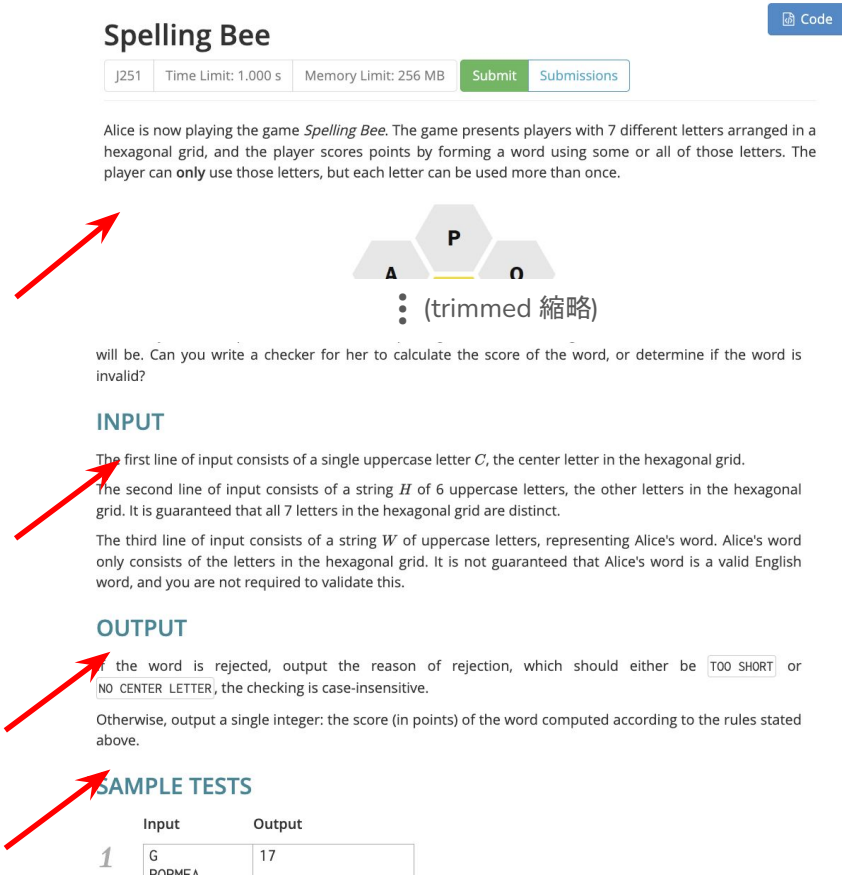
	Input	Output
1	G ROPMEA	17

Task 題目

Usually, a task consists of these part.

通常，題目包含以下部分

- Statement 題目描述
- Input 輸入
- Output 輸出
- Sample Tests 樣例
- Subtask Constraints 子任務限制



Code

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J251 | Time Limit: 1.000 s | Memory Limit: 256 MB | Submit | Submissions

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SAMPLE TESTS

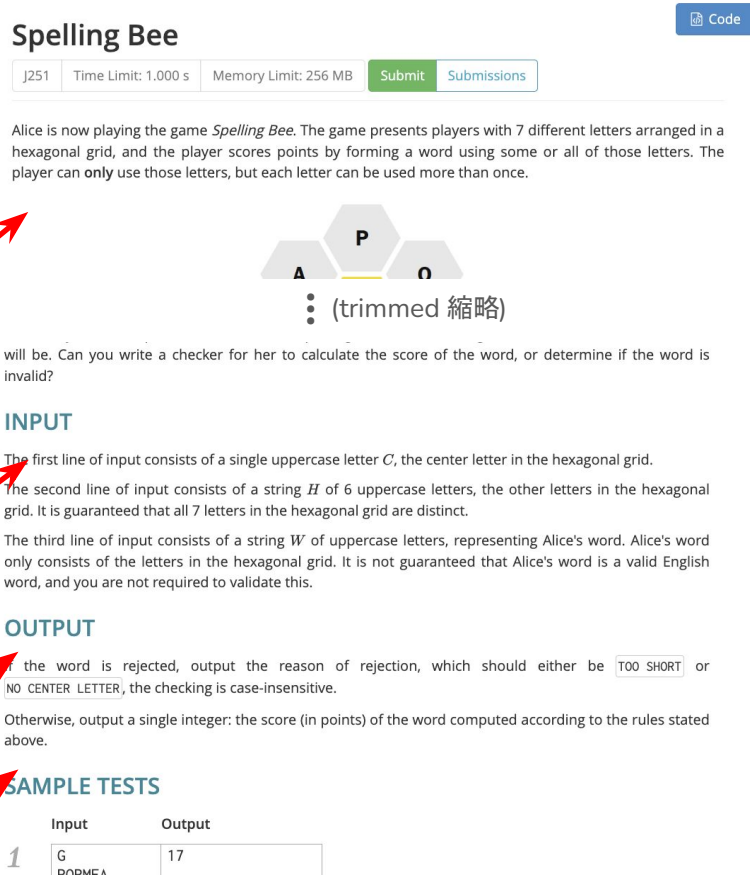
	Input	Output
1	G ROPMEA	17

Task 題目

No need to validate inputs. The input always satisfy the specified input format and constraints.
無需驗證輸入。輸入必定符合列明的輸入格式與限制。

Unless specified by the task, do **NOT** output prompts (e.g., “Please enter X and Y:”)
除非題目要求，**不要**輸出提示訊息（例如：”請輸入 X 和 Y：”）

Your program's output will be automatically fixed for output format. Trailing spaces in each line will be removed and an end-of-line character will be added to the end of the output if not present.
程序的輸出格式會自動修正。每行最尾的連續的空格會被刪除，及在輸出最後補上換行符（如沒有）



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Spelling Bee

J251 | Time Limit: 1.000 s | Memory Limit: 256 MB | Submit | Submissions

Alice is now playing the game *Spelling Bee*. The game presents players with 7 different letters arranged in a hexagonal grid, and the player scores points by forming a word using some or all of those letters. The player can **only** use those letters, but each letter can be used more than once.

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SAMPLE TESTS

	Input	Output
1	G ROPMEA	17

Subtasks 子任務

Each task is further divided into subtasks, with additional constraints. Subtask of harder task could be easier than the full task of entry tasks.

題目設有子任務，帶有額外限制。難題的子任務可比淺題的完整題目簡單。

To score points for a subtask, contestants' programs must be correct for all test cases in that subtask.

要獲得子任務的分數，參賽者的程式必須對該子任務中的所有測試數據都正確。

SUBTASKS

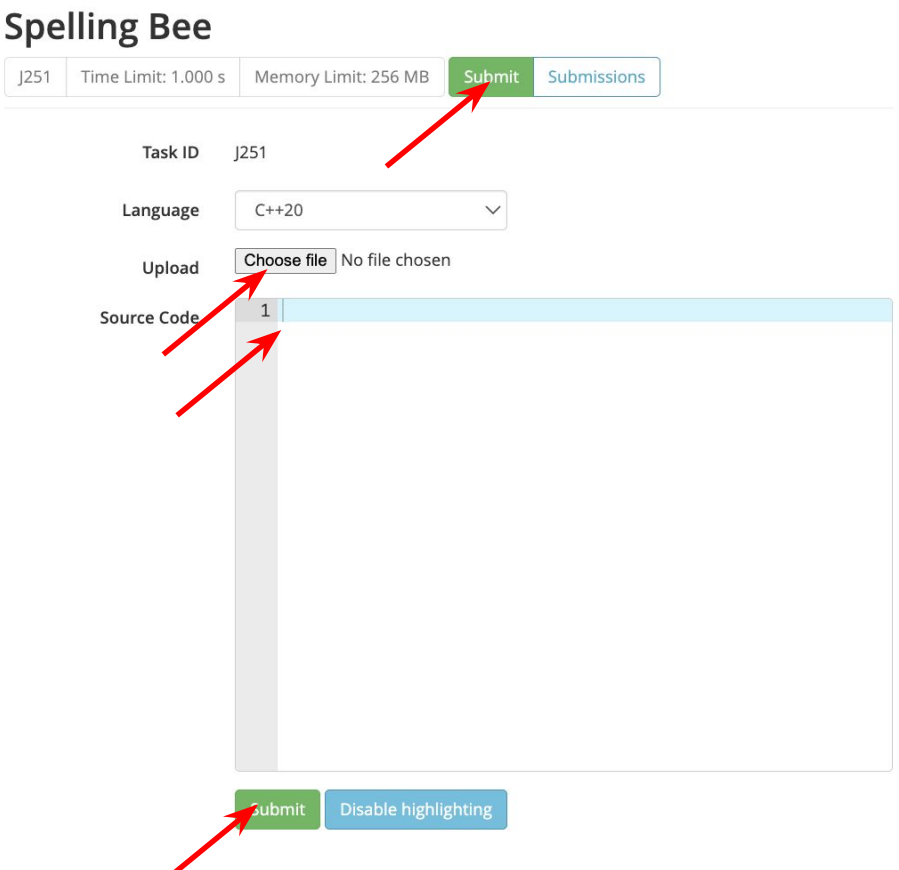
For all cases:
C is an uppercase letter
H consists of exactly 6 uppercase letters
W consists of 2 to 13 (inclusive) uppercase letters
W only consists of the letters in C and H

	Points	Constraints
1	21	Alice's word is not a pangram Alice's word is accepted
2	22	Alice's word is not a pangram Alice's word consists of at least 5 letters
3	7	Alice's word is not a pangram
4	23	Alice's word is accepted
5	18	Alice's word consists of at least 5 letters
6	9	No additional constraints

Submit 提交

Contestants can use the software installed in the virtual machine (e.g. Visual Studio Code) to code their solution.
參賽者可以使用安裝在虛擬主機內的軟件（如 Visual Studio Code）來編寫程式。

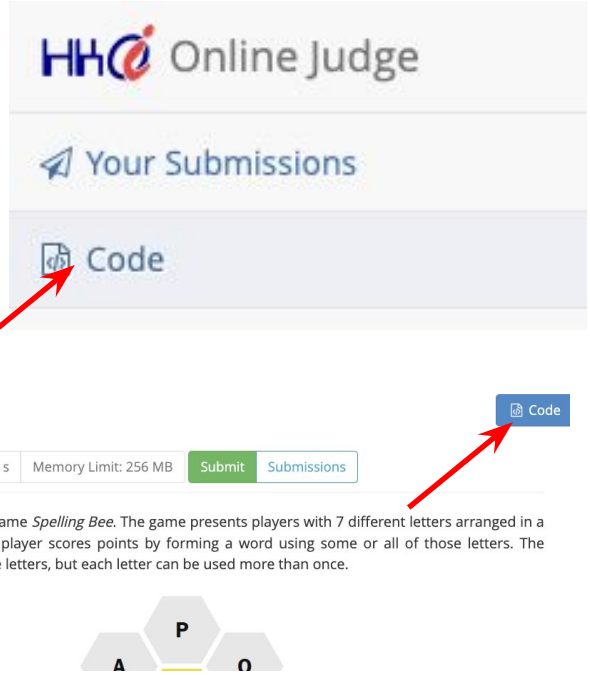
In the submit page, contestants can either upload the source code or paste the source code to the page.
在提交頁面中，參賽者可以選擇上傳原始碼檔案，或直接將原始碼貼至頁面上。



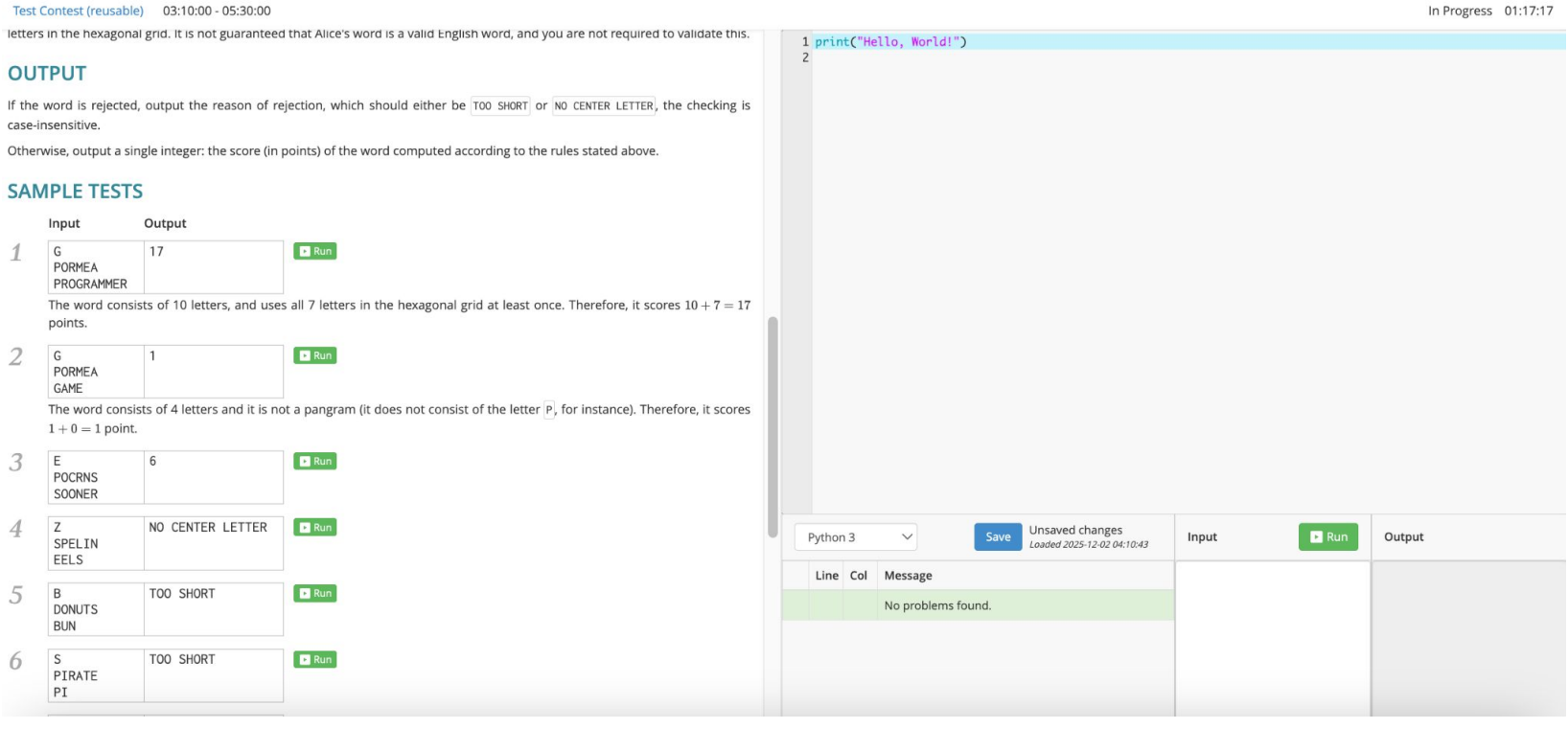
Code 編程

There is also a built-in “Code” IDE in the Judge system. Contestants can access it on the sidebar, or open the IDE per task within the task page.

評測系統中也有內建的「Code」IDE。參賽者可以透過側邊欄進入，或是直接在題目頁面中針對個別題目開啟 IDE。



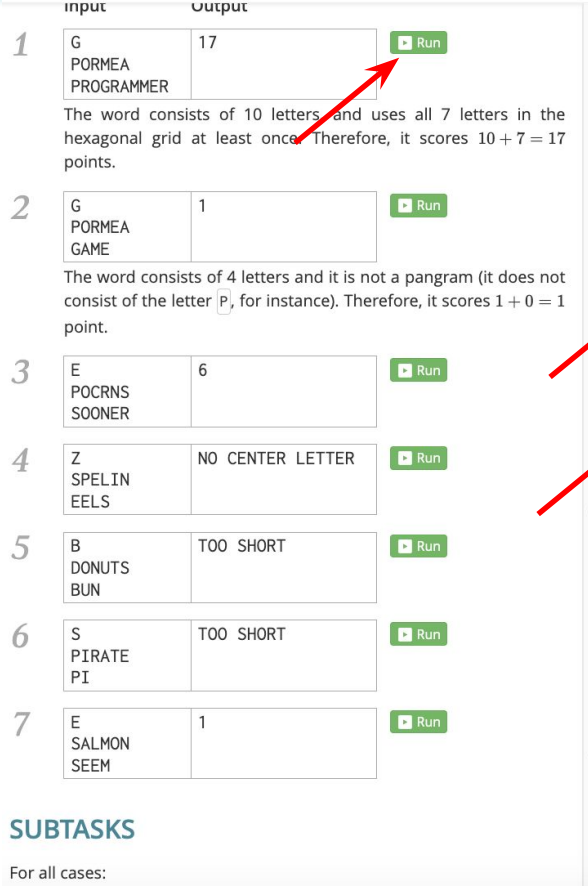
Code 編程


Test Contest (reusable) 03:10:00 - 05:30:00
In Progress 01:17:17
letters in the hexagonal grid. It is not guaranteed that Alice's word is a valid English word, and you are not required to validate this.
OUTPUT
If the word is rejected, output the reason of rejection, which should either be TOO SHORT or NO CENTER LETTER, the checking is case-insensitive.
Otherwise, output a single integer: the score (in points) of the word computed according to the rules stated above.
SAMPLE TESTS
Input Output
1 G PORMEA PROGRAMMER 17 Run
The word consists of 10 letters, and uses all 7 letters in the hexagonal grid at least once. Therefore, it scores 10 + 7 = 17 points.
2 G PORMEA GAME 1 Run
The word consists of 4 letters and it is not a pangram (it does not consist of the letter P, for instance). Therefore, it scores 1 + 0 = 1 point.
3 E POCRNS SOONER 6 Run
4 Z SPELIN EELS NO CENTER LETTER Run
5 B DONUTS BUN TOO SHORT Run
6 S PIRATE PI TOO SHORT Run
1 print("Hello, World!")
2
Python 3
Save
Unsaved changes
Loaded 2025-12-02 04:10:43
Input
Run
Output
Line Col Message
No problems found.

Code 編程

After coding the solution in the “Code” IDE, contestant can directly test the program with samples via the “Run” button.

在「Code」IDE 中編寫完解答後，參賽者可以按下「執行」按鈕，直接使用範例測試程式。



	Input	Output	
1	G PORMEA PROGRAMMER	17	Run

The word consists of 10 letters and uses all 7 letters in the hexagonal grid at least once. Therefore, it scores $10 + 7 = 17$ points.

2	G PORMEA GAME	1	Run

The word consists of 4 letters and it is not a pangram (it does not consist of the letter `P`, for instance). Therefore, it scores $1 + 0 = 1$ point.

3	E POCRNS SOONER	6	Run
4	Z SPELIN EELS	NO CENTER LETTER	Run
5	B DONUTS BUN	TOO SHORT	Run
6	S PIRATE PI	TOO SHORT	Run
7	E SALMON SEEM	1	Run

SUBTASKS

For all cases:

```
1 c = input()
2 h = input()
3 w = input()
4
5 if len(w) == 4:
6   score = 1
7 else:
8   score = len(w)
9
10 full = c + h
11 pangram = True
12 for x in full:
13   if x not in w:
14     pangram = False
15 if pangram:
16   score += 7
17
18 print(score)
```

Python 3 | Submit | Up to date *Loaded 2025-12-02 04:15:12*

Line	Col	Message
		No problems found.

Input — Run

```
G
PORMEA
PROGRAMMER
```

Output — OK (0.025s)

```
17
```

Code 編程

Contestants can also test their programs with own test cases.

參賽者也可以使用自訂的測試數據來測試程式。

	Input	Output	
1	G PORMEA PROGRAMMER	17	Run

The word consists of 10 letters, and uses all 7 letters in the hexagonal grid at least once. Therefore, it scores $10 + 7 = 17$ points.

	Input	Output	
2	G PORMEA GAME	1	Run

The word consists of 4 letters and it is not a pangram (it does not consist of the letter `P`, for instance). Therefore, it scores $1 + 0 = 1$ point.

	Input	Output	
3	E POCRNS SOONER	6	Run
4	Z SPELIN EELS	NO CENTER LETTER	Run
5	B DONUTS BUN	TOO SHORT	Run
6	S PIRATE PI	TOO SHORT	Run
7	E SALMON SEEM	1	Run

SUBTASKS

For all cases:

```
c = input()
h = input()
w = input()

if len(w) == 4:
  score = 1
else:
  score = len(w)

full = c + h
pangram = True
for x in full:
  if x not in w:
    pangram = False
if pangram:
  score += 7

print(score)
```

Python 3 | Submit | Up to date *Loaded 2025-12-02 04:15:12*

Line	Col	Message
		No problems found.

Input Run

```
G
PORMEA
PROGRAMMER
```

Output OK (0.025s)

```
17
```

Code 編程

Pressing the “Submit” button would directly submit the code to be judged.

按下「提交」按鈕將直接送出程式碼進行評測。

	Input	Output	
1	G PORMEA PROGRAMMER	17	Run

The word consists of 10 letters, and uses all 7 letters in the hexagonal grid at least once. Therefore, it scores $10 + 7 = 17$ points.

	Input	Output	
2	G PORMEA GAME	1	Run

The word consists of 4 letters and it is not a pangram (it does not consist of the letter `P`, for instance). Therefore, it scores $1 + 0 = 1$ point.

	Input	Output	
3	E POCRNS SOONER	6	Run
4	Z SPELIN EELS	NO CENTER LETTER	Run
5	B DONUTS BUN	TOO SHORT	Run
6	S PIRATE PI	TOO SHORT	Run
7	E SALMON SEEM	1	Run

SUBTASKS

For all cases:

```
c = input()
h = input()
w = input()

if len(w) == 4:
  score = 1
else:
  score = len(w)

full = c + h
pangram = True
for x in full:
  if x not in w:
    pangram = False
if pangram:
  score += 7

print(score)
```

Python 3 | Submit | Up to date *Loaded 2025-12-02 04:15:12*

Line	Col	Message
		No problems found.

Input Run

```
G
PORMEA
PROGRAMMER
```

Output OK (0.025s)

```
17
```

Judge Results 評測結果

After judging, contestants will be redirected to a judge results page, with the summary on the scores gained from each subtasks.

評測完成後，畫面將跳轉至評測結果頁面，並顯示在各子任務的得分總結。

Judge Results

Subtask	Test	Result	Score
1	39	Accepted	100.000
2	18	Wrong Answer	
3	Including tests in Subtask 1		100.000
3	Including tests in Subtask 2		0.000
3	Skipped		
4	Including tests in Subtask 1		100.000
4	17	Accepted	100.000
5	Including tests in Subtask 2		0.000
5	Skipped		
6	Including tests in Subtask 3		0.000
6	Including tests in Subtask 4		100.000
6	Skipped		

Summary

Subtask	Prev	This	Score	Max Score
1	0	21	21	21
2	0	0	0	22
3	0	0	0	7
4	0	23	23	23
5	0	0	0	18
6	0	0	0	9
Total		44	44	100

Source Code (Python 3)

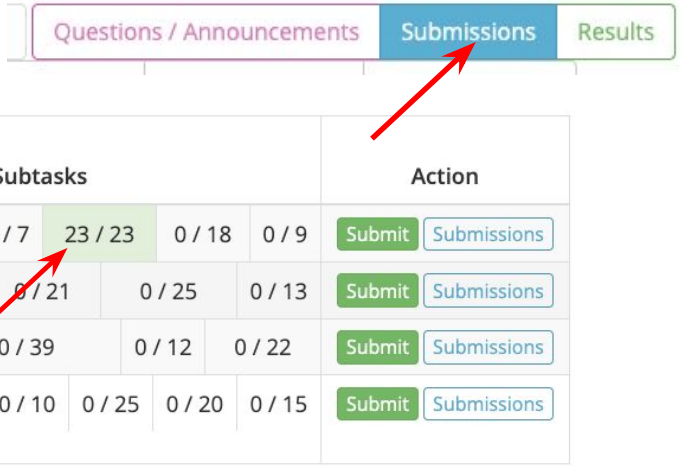
Share / Details

```
c = input()
h = input()
w = input()

if len(w) == 4:
  score = 1
else:
  score = len(w)

full = c + h
pangram = True
for x in full:
```

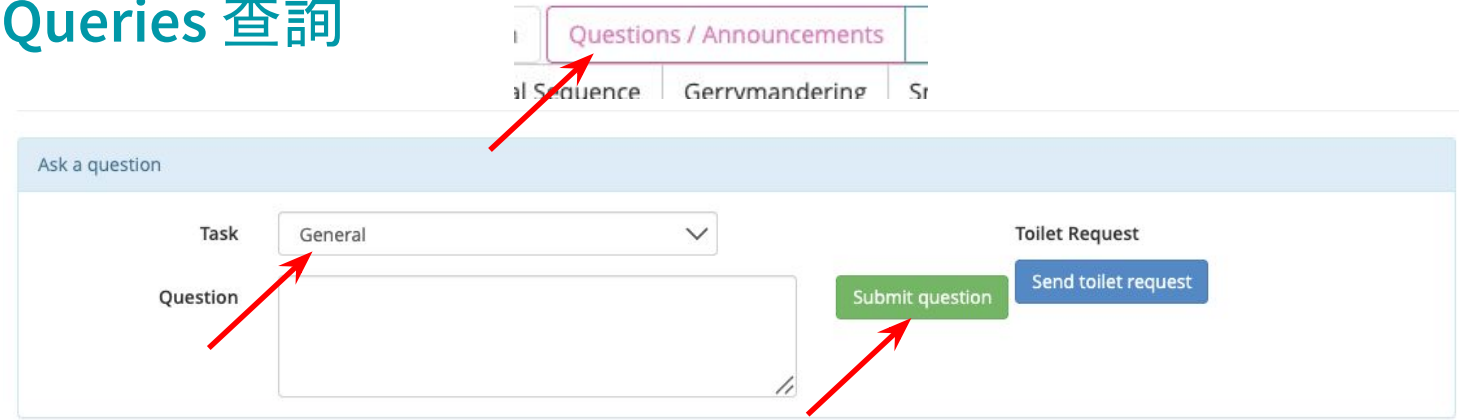
Judge Results 評測結果



ID	Name	Max Score	Your Score	Subtasks	Action
J251	Spelling Bee	100	44	21 / 21 0 / 22 0 / 7 23 / 23 0 / 18 0 / 9	Submit Submissions
J252	Dual-Election	100		0 / 19 0 / 22 0 / 21 0 / 25 0 / 13	Submit Submissions
J253	Tournament II	100		0 / 11 0 / 16 0 / 39 0 / 12 0 / 22	Submit Submissions
J254	Wandering Around the Garden	100		0 / 4 0 / 6 0 / 20 0 / 10 0 / 25 0 / 20 0 / 15	Submit Submissions

The current results will be updated on the contest front page overview. You can also read your previous submissions in the “Submissions” tab. Your results are not visible to other contestants during the contest.
你目前的成績將會更新至比賽首頁的總覽中。你也可以在「您的提交」分頁查看你過去的提交紀錄。在比賽期間，其他參賽者無法看到你的成績。

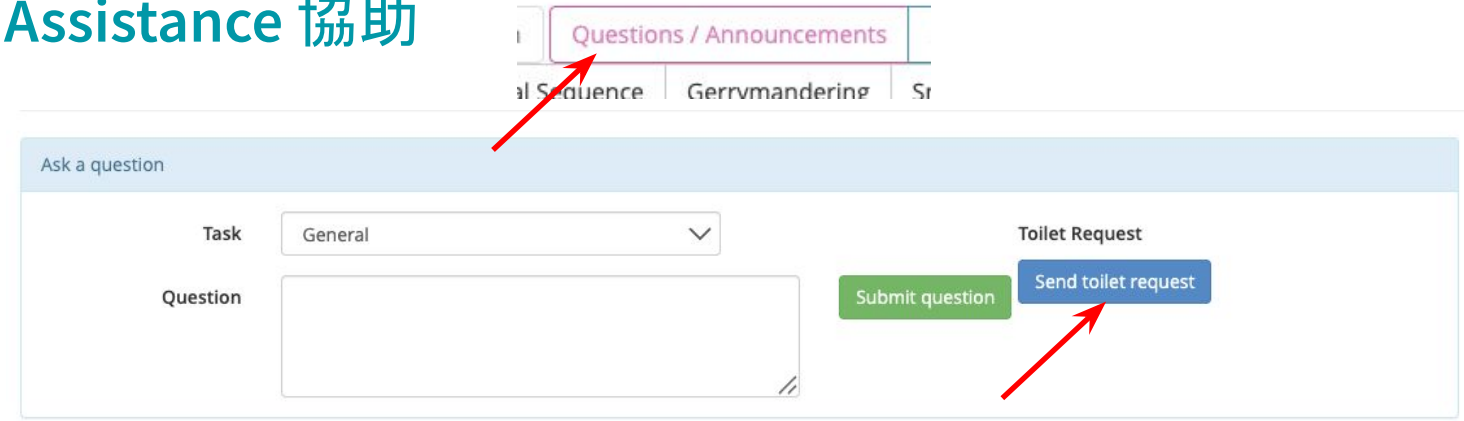
Queries 查詢



During the contest, contestants are allowed to seek clarifications by using the Questions / Announcements feature. When the task statement indeed contains an error or critical ambiguity, the clarification will be announced to all contestants.

比賽時，參賽者可透過「問答」功能，要求大會裁判澄清題目的文字描述。當題目說明確實包含錯誤或嚴重歧義時，將向所有參賽者公佈澄清內容。

Assistance 協助



If contestants wish to go to the toilet during the test, they must make a request using the Questions / Announcements feature. Contestants may only go to the toilet upon approval by the invigilators. It will be regarded as cheating if you leave the seat without the invigilator's approval.

如參賽者欲前往洗手間，他們必須先用「問答」功能提出要求。獲監考員批准後，方可前往洗手間。未經批准擅自離開座位將視為作弊行為。

Assistance 協助

In case of technical problems or emergencies (like the workstation disconnecting or freezing) where you cannot use the Questions / Announcements feature, please raise your hand for an invigilator's help and do not try to fix it on your own.

如遇到技術問題或突發情況（例如，脫離虛擬主機、電腦無反應等），且不能使用「問答」功能，請舉手尋求監考員協助，請勿自行處理。

End of Contest
比賽完結後

End of Contest 比賽完結後

Please remain seated quietly and wait for the judging to finish.
請在座位靜候完成評測。

When instructed, please check your score again. If you have any objection, you should raise it immediately. They will not be handled after you leave the venue.
收到指示後，請檢查你的分數。如有異議應當場提出，離開試場後不會再接受異議。

End of Contest 比賽完結後

When instructed, pack all your belongings including the question papers and rough work sheets. Leave the room orderly.

收到指示後收拾個人物品，包括試卷及草稿紙，然後有序離開。

End of Contest 比賽完結後

The competition results will be released on the official HKOI website (hkoi.org/hkoi) on the day of the competition. You may also log in to the Online Judge System at judge.hkoi.org to view your submitted code, detailed judging results, and the rankings and scores of all participants.
比賽結果將於比賽即日內於 HKOI 官方網站 (hkoi.org/hkoi) 公佈。你亦可以登入網上評測系統 judge.hkoi.org 查閱你提交的程式碼、詳細評測結果以及全部參賽者的名次及分數。

Please note that the temporary practice accounts are valid until 12:00 midnight tonight. Please log in to review the information before the accounts expire.
請注意，臨時練習帳戶有效期到比賽當晚 12 時為止，請在限期前登入查閱。