# Python 復智

for ZeroJudge e287

## 第一次登入刷題網站

1. 帳號: 各自班級座號共5碼。、

密碼:各自學號後4碼

2. 右上角帳號下拉選單 → +參加課程輸入 Google Classroom

課程材料:刷題網站

說明中的代碼

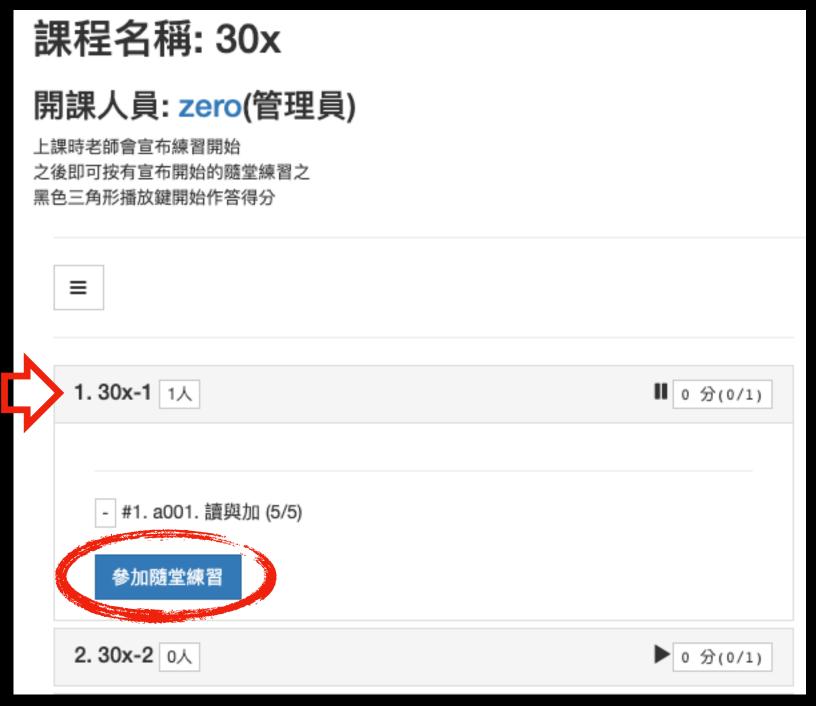


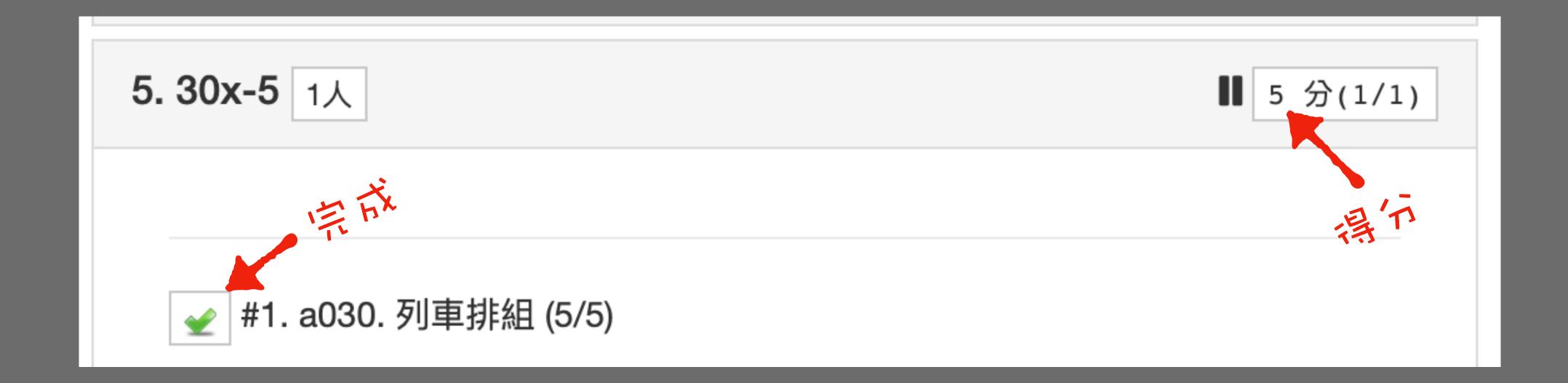
## 每次隨堂練習

- 1. 右上角帳號下拉選單 → 所參加課程
- 2. 先點擊該次的練習展開
- 3. 然後點擊 参加隨堂練習 如果展開後沒有這個按鈕則該次練習無開放,若有疑問詢問老師
- 4. 之後進入的頁面點擊題號即可開始作答得分



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## 測資輸入

#### 輸入以空格分隔的整數

• 一個整數

```
n = int (input ())
```

三個整數 (→數個整數)a, b, c = map (int, input().split())

• 數個整數組成一個 list

```
nums = list (map (int, input().split()))
```

```
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```

```
for i in range (1, 10 + 1):
       print (i)
[1]
     0.2s
                         Python
  4
  6
           range (a, b) 的表示相當於
           一包含a但不包含b的整數等差數列。
  8
           第三個參數為公差,沒寫則內定為 1
  10
```

```
list1 = [ 1, 2, 3 ]
list2 = [ 4, 5, 6 ]

0.2s Python
```

··· [1, 2, 3, 4, 5, 6]

··· [1, 2, 3, 1, 2, 3]

print (\*).ist4) # 以空格分隔印出 list4 的內容
[4] ✓ 0.2s Python

... 1 2 3 1 2 3

```
nums = [4, 5, 2, 6]
[1]
                                                   Python
    ✓ 0.2s
       mn = min (nums) #·找·nums·裡的最小值
       print (mn)
[2]
    ✓ 0.2s
                                                   Python
       i = nums.index (5) # 找 5 在 nums 中的序號
       print (i)
[3]
    ✓ 0.2s
                                                   Python
• • •
       nums.append (7) # 將 7 附加到 nums 最後
       print (nums)
[4]
    ✓ 0.4s
                                                   Python
```

[4, 5, 2, 6, 7]

**述式**(參數)

物件。方法 (參數)

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## 常見函示呼叫錯誤:

```
print (abs ("hi"))
[1]
       0.7s
                                                                                          Python
. . .
                                                   Traceback (most recent call last)
    TypeError
    Cell In[1], line 1
    ----> 1 print (abs ("hi"))
    TypeError: bad operand type for abs(): 'str'
     Built-in Data Types
```

In programming, data type is an important concept.

Variables can store data of different types, and different types can do different things.

Python has the following data types built-in by default, in these categories:

Text Type: str

Numeric Types: int, float, complex

Sequence Types: list, tuple, range

Mapping Type: dict

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## 常見物件方法呼叫錯誤:

object 物件是 class 類別的 instance 實例 class 類別的定義裡面會有 variables 變數和 methods 方法 兩者都是 object/class 的 attributes 屬性

# 二維資料的表示

- 直行 (欄,Column 柱子) 横列 (Row 划)
- 序號同樣從 0 起算
- List of lists: 一維的 lists 並排在一起

```
list2d = []
      print (list2d)
   ✓ 0.2s
                                          Python
       list2d.append ( [ 1, 2, 3 ] )
      print (list2d)
[2]
    ✓ 0.2s
                                          Python
                                                   [ [ 1, 2, 3 ] ]
   [[1, 2, 3]]
       list2d.append ( [ 4, 5, 6 ] )
      print (list2d)
                                                   [ [ 1, 2, 3 ],
    ✓ 0.2s
                                          Python
[3]
                                                      [ 4, 5, 6 ] ]
   [[1, 2, 3], [4, 5, 6]]
       list2d.append ( [ 7, 8, 9] )
                                                   [ [ 1, 2, 3 ],
      print (list2d)
                                                     [ 4, 5, 6 ],
                                          Python
    ✓ 0.2s
[4]
                                                      [ 7, 8, 9 ] ]
   [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
```

欄,序號:0 欄,序號:1 欄,序號:2

列,序號:0	1	2	3
列,序號:1	4	5	6
列,序號:2	7	8	9

```
[ [ 1, 2, 3 ],
      print (list2d [110])
                                                   [ 4, 5, 6 ],
                                           Python
    ✓ 0.2s
[5]
                                                   [ 7, 8, 9 ] ]
      print (list2d [2][2]
    ✓ 0.2s
                                           Python
• • •
       list2d [[0][1]] = [12-
       print (listzd)
    ✓ 0.2s
                                          Python
   [[1, 12, 3], [4, 5, 6], [7, 8, 9]]
                                                [ [ 1, 12, 3 ], |
                                                   [ 4, 5, 6 ],
                                                   [7,8,9]
```

列,序號:0 **1** 12 3 列,序號:1 4 5 6

欄,序號:O 欄,序號:1 欄,序號:2

列,序號:2 7 8 9