進階資料結構程式作業三

題目：Eat or not to Eat?

A young farmer has N cows, but they produced really really a very very small amount of milk. John cannot live on the milk they made, so he's planning to eat some of the 'worst' cows to get rid of hunger. Each day, John chooses the cow that produces the LEAST amount of milk on that day and eat them. If there are more than one cow with minimal milk, John will be puzzled and will not eat any of them (Yeah! That's GREAT!!).

The i-th cow has a cycle of production Ti . That means, if it produces L unit milk on one day, it will also produce L unit after Ti days — If it will not be eaten during these day :-). Though John is not a clever man, he doubts whether the cows will be eventually eaten up, so he asks for your help. Don't forget that he will offer you some nice beef for that!

Input

The first line of the input contains a single integer T, indicating the number of test cases ($1 \leq T \leq 50$). Each test case begins with an integer N ($1 \leq N \leq 1000$), the number of cows. In the following N lines, each line contains an integer Ti ($1 \leq Ti \leq 10$), indicating the cycle of the i-th cow, then Ti integers Mj ($0 \leq Mj \leq 250$) follow, indicating the amount of milk it can produce on the j-th day.

Output

For each test case in the input, print a single line containing two integers C, D, indicating the number of cows that will NOT be eaten, and the number of days passed

when the last cow is eaten. If no cow is eaten, the second number should be 0.

Sample Input

1
4
4 7 1 2 9
1 2
2 7 1
1 2

Sample Output

2 6

- **要求 1:** 所寫的程式必須以所附之電子檔 Eat or Not to Eat.in 為輸入測試資料, 產生如所附之電子檔 Eat or Not to Eat.out 的內容

- **要求 2:** 請將所寫程式 source code 檔, 執行檔(.exe) 與 書面報告檔(格式如下,存成 pdf 檔)壓縮成一個檔案後上傳 TronClass 作業區

- **上傳 TronClass 作業區截止期限:** 2019/06/14（五）23:59

- **書面報告格式: 包含下面各項資料**

  1. **班級學號姓名**
  2. **題目**
  3. **程式解法說明**
  4. **討論**
  5. **程式碼**