

# 淡江大學電機工程學系 106 學年度韌體實驗題目

## 13. 【大理石在那兒？/Where is the Marble?】

現有  $N$  個大理石，每個大理石上寫了一個非負整數。首先把各數從小到大排序，然後回答  $Q$  個問題，每個問題問是否有一個大理石寫著某個整數  $x$ ？如果是，還要回答哪個大理石上寫著  $x$ （如果有兩個以上時，回答排序後算來的第一個）。排序後的大理石從左到右編號為  $1 \sim N$ 。

輸入（註 1）：

```
4 1
2
3
5
1
5
5 2
1
3
3
3
1
2
3
0 0
```

輸出（註 2）：

```
CASE# 1:
5 found at 4
CASE# 2:
2 not found
3 found at 3
```

（註 1）

### Input

There can be multiple test cases. Total no of test cases is less than 65. Each test case consists begins with 2 integers:  $N$  the number of marbles and  $Q$  the number of queries Mina would make. The next  $N$  lines would contain the numbers written on the  $N$  marbles. These marble numbers will not come in any particular order. Following  $Q$  lines will have  $Q$  queries. Be assured, none of the input numbers are greater than 10000 and none of them are negative.

Input is terminated by a test case where  $N = 0$  and  $Q = 0$ .

（註 2）

### Output

For each test case output the serial number of the case.

For each of the queries, print one line of output. The format of this line will depend upon whether or not the query number is written upon any of the marbles. The two different formats are described below:

- ' $x$  found at  $y$ ', if the first marble with number  $x$  was found at position  $y$ . Positions are numbered  $1, 2, \dots, N$ .
- ' $x$  not found', if the marble with number  $x$  is not present.

Look at the output for sample input for details.