**Simple Party Finding**

Minions Legends is a multiplayer online battle arena (MOBA) mobile game. In this game, each player will be grouped with another player to form a team. The team will fight another team to defend their sacred ancient and to destroy their opponent’s base.

In the next patch, the developers of the game want to create a simple party finding algorithm which can match two players based on their matchmaking rating (MMR). In their implementation, a player will be grouped with another player which has higher MMR above him/her. If the player has the highest MMR, he/she will be grouped with another player which has lower MMR one level below him/her.

**Format Input**

The first line contains integer *K* which denote as the number of cases. The second line contains integer *N* stating the total number of players. Then, the third line consists of *N* matchmaking rating number in the game. Lastly, the fourth line contains of F which denote as the MMR’s player which want to find a party.

**Format Output**

Output with a format “CASE #K: [MMR\_1] [MMR\_2]”; where MMR\_1 and MMR\_2 are the result of party finding. If the inputted MMR’s number is not in the list of players, give an output “CASE #K: -1 -1”.

**Constraint**

* 1 ≤ K ≤ 100
* 2 ≤ N ≤ 1000
* 3000 ≤ MMR ≤ 9999
* 3000 ≤ F ≤ 9999

**Sample Input (standard input)**

|  |
| --- |
| 3  10  3246 4255 4873 5004 5095 6001 6692 7100 7610 9712  9712  8  4957 5444 5464 5634 6149 6622 8313 9492  4957  6  5393 6021 7233 8115 8118 9304  9999 |

**Sample Output (standard output)**

|  |
| --- |
| CASE #1: 7610 9712  CASE #2: 4957 5444  CASE #3: -1 -1 |