

## Leveling Bibi

Bibi is playing the Role Playing Game (RPG). There are several terms in the RPG game, namely Experience (Exp), Party, Leveling, and Respawn.

- An experience point (often abbreviated to exp or XP) is a unit of measurement used in tabletop role-playing games (RPGs) and role-playing video games to quantify a player character's progression through the game.
- Party has a meaning that is the gathering of several people in the same game, who do leveling. When we party, the exp gained by a player will also be obtained by another party partner. Vice versa.
- Leveling has a meaning that is, our efforts in raising the level of our character. Usually by killing monsters.
- Respawn has a meaning that is, reappears, so monsters that have been killed, will come back to life.

Bibi is very ambitious, she does not want to lose to Jojo, so she will also leveling by killing monsters. To speed up his leveling, he will form a "party" together with his friends to speed up the leveling.

The Exp that you get is equal to the level of a monster that you killed. All the monsters here will immediately respawn again after being killed, but the monster cannot be killed by the same player for 2 times. So if Bibi has killed monster A, when monster A respawn, monster A can't be killed by Bibi anymore, but can be killed again by other players from Bibi's party, and so can other players.

Players in this game can only kill monsters that have the same level or less than the player level. If a player attacks a monster at a level above it, that player will die. A player can attack more than 1 monster as long as it follows the rules.

Because Jojo also did not want to lose to Bibi, Jojo wanted to count the amount of exp that was obtained by Bibi's party, so that Jojo could defeat him. But because Jojo is too busy leveling, Jojo asks for your help to calculate it for him.

### Format Input

The input consists of several lines in “**testdata.in**” file.

The first line contains  $N$  and  $M$ , the number of monsters in the dungeon and the player in Bibi’s party.

The second line is  $M$  number  $L_i$ , the level of each player in Bibi’s party.

The third line is  $N$  number  $A_i$ , the number the level of the monster in sorted order.

### Format Output

Output "Case #X: Y" for each question, where  $X$  is the query number and  $Y$  the amount of exp that Bibi’s party got.

### Constraints

$$1 \leq N \leq 5 * 10^4$$

$$1 \leq M \leq 5 * 10^4$$

$$1 \leq L_i \leq 1000$$

$$1 \leq A_i \leq 1000$$

Sample Input 1 (testdata.in)	Sample Output 1 (standard output)
5 3 4 5 8 3 4 5 8 9	39

Sample Input 2 (testdata.in)	Sample Output 2 (standard output)
5 2 2 7 2 3 4 5 6	22

Sample Input 3 (testdata.in)	Sample Output 3 (standard output)
5 5 1 2 3 4 5 1 2 3 4 5	35

### Explanation Sample Input 1:

For sample input 1:

- Player 1 that has level 4 can kill 2 monsters that are level 3 and 4, the exp that player number 1 get is 7.
- Player 2 that has level 5 can kill 3 monsters that are level 3, 4, and 5 the exp that player number 2 get is 12.
- Player 3 that has level 8 can kill 4 monsters that are level 3, 4, 5, and 8 the exp that player number 3 get is 20.

So, the total experience gained by Bibi's party is  $7 + 12 + 20 = 39$ .

