Where to go?

Lea just had a fun night out, partying with her friends. The music was good and there was even free pizza for everone. Good times!

But now, everybody is tired and Lea decides to head home. As she is very tired, she wants to walk to the nearest subway station and get home. Can you tell her which way to go and if she will arrive on time for the last train home?

Input

The first line of the input contains an integer t. t test cases follow, each of them separated by a blank line.

Each test case begins with two integers n and m s. n is the amount of intersections of roads (indexed from 1 to n), m is the amount of roads in her vicinity and s is the amount of subway stations she considers walking to. m lines follow. The i-th line contains three integers a_i b_i c_i specifying that there is a road from intersection a_i to intersection b_i and Lea will need c_i minutes to walk from one end to the other. All roads can be used in both directions. s lines follow. The i-th line contains an integer s_i specifying that there is a subway station at intersection s_i. Lea starts at intersection 1.

Output

For each test case, output one line containing "Case #i: x s" where i is its number, starting at 1, x is the number of minutes Lea needs to the nearest subway station and s is a space-separated list of intersections (in ascending order) which have subway stations and which Lea can reach in exactly x minutes.

Constraints

- $1 \leq t \leq 20$
- $1 \leq n \leq 250$
- $0 \leq m \leq 10000$
- $1 \leq s \leq \min(n, 100)$
- $1 \leq a_i, b_i, s_i \leq n$ for all $1 \leq i \leq m$
- $1 \leq c_i \leq 100$ for all $1 \leq i \leq m$
- The graph is connected

Sample Input 1	Sample Output 1
3 4 4 1 1 2 2 1 3 1 2 4 1 3 4 3 4 5 4 2 1 2 1 2 3 3 1 4 2 4 5 2 3 5 3 2 2 1 2 1 2 3 1 2 3	Case #1: 3 4 Case #2: 4 3 5 Case #3: 1 2

Sample Input 2

```
4
10 12 4
1 10 10
2 4 3
7 4 6
2 7 5
5 10 4
8 3 8
2 9 2
3 6 7
1 5 8
2 8 4
7 5 7
1 2 1
10
8
6
2

9 12 1
6 7 5
4 9 9
7 3 2
9 5 9
4 9 5
3 2 1
7 8 1
4 8 4
3 6 5
5 9 9
4 7 8
1 4 6
8

7 7 4
6 5 8
2 4 4
4 7 8
1 6 8
6 3 3
2 7 6
6 2 9
6
7
4
5

5 4 4
1 4 3
2 3 6
2 5 3
1 2 10
3
2
4
5
```

Sample Output 2

```
Case #1: 1 2
Case #2: 10 8
Case #3: 8 6
Case #4: 3 4
```