Playground

Problem Statement:

Little Timmy wants to meet his friends at the playground! There are n playgrounds and m tunnels. Playgrounds have id 1 to n, the playgrounds are connected by bidirectional tunnels, and each tunnel has a length of d.

Timmy starts at playground of id s and wants to reach any playground where his friends are. All his friends are at different playgrounds. He must travel through a magic tunnel before meeting his friends to get the secret passphrase, otherwise his friends would not play with him.

As Timmy is quite lazy, he does not want to travel very far. Can you help him find which playground(s) he can possibly end at that lets his friends play with him, given that Timmy always takes the shortest path from s to any playground? The magic tunnel is guaranteed to be on a shortest path to at least one of the playgrounds his friends are at.

Input:

On the first line, 3 space separated integers, n, m and f, denoting the number of playgrounds, number of tunnels, and number of his friends. (2 <= n <= 2000, 1 <= m <= 50000, 1 <= f <= 100)

The next line contains 3 space separated integers s, g, h. s denotes the playground id Timmy starts at. g and h denote the magic tunnel connecting playgrounds of id g and h. (1 <= s, g, h <= n)

The next m lines contain 3 space separated integers a, b and d, where a and b are the 2 playground ids that are connected by a tunnel, and d is the length of the tunnel. (1 <= a < b <= n, 1 <= d <= 1000)

The next f lines contains 1 integer, the id of the playground each friend is at.

Output:

In a single line, all the possible playgrounds ids Timmy can end at, in increasing order, space seperated.

Sample Input 1:

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

```
4 5 8
4 6 6
5 6 14
5
6
```

Sample Output 1:

```
6
```

Sample Input 2:

```
5 4 2
1 3 2
1 2 12
2 3 4
3 4 8
3 5 6
5
4
```

Sample Output 2:

```
4 5
```

Explanation:

For Sample Input 1, Timmy starts at playground 2, and he needs to travel through the magic tunnel connecting playgrounds 1 and 3. His friends are at playgrounds 5 and 6. Timmy should end up at playground 6, as the shortest path to get to playground 6 (2 -> 1 -> 3 -> 6) passes through the magic tunnel while the shortest path to playground 5 does not.

For Sample Input 2, there are two playgrounds he can end at. Both the shortest paths from playground 1 to playground 4, and from playground 1 to playground 5, pass through the tunnel.