

Sample Input

```
5
2 3 3 4 6
3 1 2 3 7 5 6
1 4 5
0
1 4 7
2 4

2
1 2 5
1 1 6
1 2

7
4 2 5 3 13 4 8 5 18
2 3 7 6 14
1 6 6
2 3 5 5 9
3 6 2 7 9 4 6
1 7 2
0
1 7

0
```

Sample Output

```
Case 1: Path = 2 1 4; 8 second delay
Case 2: Path = 1 2; 5 second delay
Case 3: Path = 1 2 3 6 7; 20 second delay
```