Robbery in Kushville

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

Kushville is a happy, serene city. The city map can be described by intersections numbered from 1 to N, with M bidirectional roads connecting M pairs of the N intersections. The residents of Kushville are plant lovers, and thus are against having a lot of buildings in their city. They have just one bank, Kushbank, located on intersection B. They also love taking vacations in the nearby hills, so V out of the N intersections are bus stands.

There was a robbery in Kushbank! In the early hours of Monday, a fresh collection of bank notes was stolen. The thieves used the road network to escape, but they could have left the city from any one of the V bus stands. But of course, they would have taken the shortest path from B to the bus stand. Luckily, an alert citizen found one of the fresh bank notes lying on the road connecting intersections G and H, and reported it. This means the thieves definitely passed this road during their escape. Based on this information, can you further shortlist the bus stands from where they could have left the city?

Input

The first line contains one positive number - the number of test cases (at most 100). Each test case contains:

- One line with three space separated integers N, M and $V(2 \leq N \leq 2000,\ 1 \leq M \leq 50000,\ 1 \leq V \leq 100)$ - the number of intersections in the city, the number of individual roads between those intersections, and the number of bus stands respectively.
- One line with three space separated integers B, G and $H(1 \leq B, G, H \leq N)$ - the intersection where Kushbank is located and the two intersections between which the fresh note was found, with $G \neq H$.
- M lines with three space separated integers X, Y and $L(1 \leq X < Y \leq N$ and $1 \leq L \leq 1000)$, indicating that there is a bidirectional road between intersections X and Y of length L.
- V lines with one integer $Z(1 \leq Z \leq N)$ - the possible destinations. All possible destinations are distinct and they are all different from B.

There is at most one road between a pair of intersections. One of the M lines describes the road between G and H. This road is guaranteed to be on the shortest path to at least one of the possible bus stands.

Output

For each test case:

- A line containing one or more space-separated integers, with the intersection labels of the bus stands from where the thieves could have left the city, in increasing order.

Example

standard input	standard output
2 5 4 2 1 2 3 1 2 6 2 3 2 3 4 4 3 5 3 5 4 6 9 2 2 3 1 1 2 1 1 3 3 2 4 4 2 5 5 3 4 3 3 6 2 4 5 4 4 6 3 5 6 7 5 6	4 5 6