Question: [Dijkstra]

Content:

Please use Dijkstra algorithm find the shortest path from S to T.

Input:

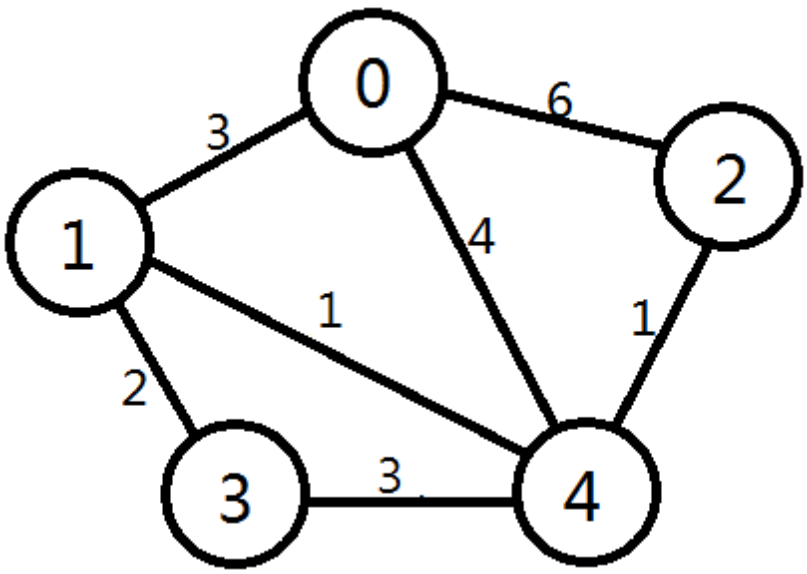
1. The first line is an integer(≦10) for the sets of input.
2. The second line is an integer which represents line numbers of the following map context.
3. The third line contains two integers ‘S’ and ‘T’. ‘S’ is the starting node and ‘T’ is destination node separated by space.
4. The following lines are node relations.
   Each line has three integers ‘a’ ‘b’ ‘w’ separated by space.
   ‘a’ is the start node connecting to ‘b’ with weight ‘w’.
5. An integer -1 is going to be input in a new line after an input of one set is finished.
6. The input maybe has the next set after the line which contains -1.

Output:

Please output the total weight of the shortest path.
Each answer must be output in different line.

Sample Input:

```
2
14
0 3
0 1 3
0 2 6
0 4 4
1 0 3
1 4 1
1 3 2
2 0 6
2 4 1
```



```
3 1 2
3 4 3
4 3 3
4 1 1
4 0 4
4 2 1
-1
10
0 2
0 4 1
1 2 7
1 3 3
1 4 4
2 1 7
2 3 2
3 1 3
3 2 2
4 0 1
4 1 4
-1
```

Sample Output:

```
5
10
```