

Lost Cake

Problem Code: **CAKE**



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Our chef just started working in a huge hotel. The hotel can be thought of as a set of R rooms, numbered from 1 to R , interconnected by C connections represented as a (r_i, r_j) - room r_i and r_j are connected. To establish himself, he prepared an awesome cake for some very important guests. However, the delivery boy made a mistake. Instead of delivering the cake to room D , where those important guests are staying, he delivered the cake to room S . After much searching our Chef found the cake in room S . Now, he has to know the minimum of rooms that the Chef will need to travel through, to reach room D (including the final room).

[All Submissions \(/DI17R018/status/CAKE\)](#)

Successful Submissions



Input/Output

N - Number of rooms in hotel

E - Number of connections between the rooms

S - The room where the cake was delivered

D - The room where the cake is to be delivered

Array A, B - $A[i], B[i]$ represents a connection between rooms $A[i]$ and $B[i]$.

First line of the input is T , the number of test cases

Second line of the input will be space separated $N E S D$

Next E lines will have $A_i B_i$ space separated

The above format will be repeated of the next testcase as well.

Constraints

$0 < T \leq 50$

$0 < N \leq 10000$

$0 < E \leq 40000$

Example

`lost_cake(7, 10, 4, 5, {1, 1, 1, 1, 2, 3, 3, 4, 5, 5}, {5, 3, 2, 4, 3, 4, 7, 6, 6, 7})` should return 2.

Sample Input File

```
1
7 10 4 5
1 5
1 3
1 2
1 4
2 3
3 4
3 7
4 6
5 6
5 7
```

Output

2

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Time Limit: 2 secs

Source Limit: 50000 Bytes

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[Problem Setting \(http://www.codechef.com/problemsetting\)](http://www.codechef.com/problemsetting)
[CodeChef Tutorials \(http://www.codechef.com/wiki/tutorials\)](http://www.codechef.com/wiki/tutorials)
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