The master plan

The thieves of Wasseypur are planning to rob a bank, then escape through one of the all possible paths available and then finally catch the train that is scheduled to depart from the station at time 'T'. In the mean while, the thieves are pretty sure that the cops would be following them just after their robbery and if they reach the station before time then they will be definitely caught by the cops. So they need to reach the station exactly at time 'T', catch the train and leave immediately.

- Let there be 'N' cities ('0' to 'N-1') in total.
- Let the robbery is to happen at city 'X' and the station is at city 'Y'.
- You will be given the information if a city is reachable from another city and for each of these path links given assume time taken to travel is 1 unit.
- for eg. suppose it is given that there is a path from A to B .
- Then travelling from A to B takes 1 unit of time (direct path).
- Assume robbery is suppose to happen at time = 0.

Given N, X, Y, T and the path links between cities. Your task is to output the total number of ways the thieves can reach 'Y' exactly at time 'T'.

Input Format

The 1st line contains 5 space separated integers denoting N, X, Y, T, M

- N - No of Cities
- X - The source or to be robbed city
- Y - The destination or station containing city.
- T - Time of departure of train.
- M - No of path links

Next M lines contain path links between individual cities.

Constraints

- $0 \leq N \leq 1000$
- $0 \leq X \leq N-1$
- $0 \leq Y \leq N-1$
- $1 \leq T \leq 5$
- $0 \leq M \leq N*(N-1)/2$
- Assume no self loops and multi-paths exist.
- No duplicate paths are there in the input.
- All path are bidirectional.

Output Format

1. Output a single integer denoting number of ways to reach 'Y' exactly at time 'T' if possible.
2. Output "Not possible" (without quotes) if it is not possible to reach 'Y' exactly at time 'T'.

Sample Input 0

```
3 0 0 2 3
0 1
1 2
2 0
```

Sample Output 0

```
2
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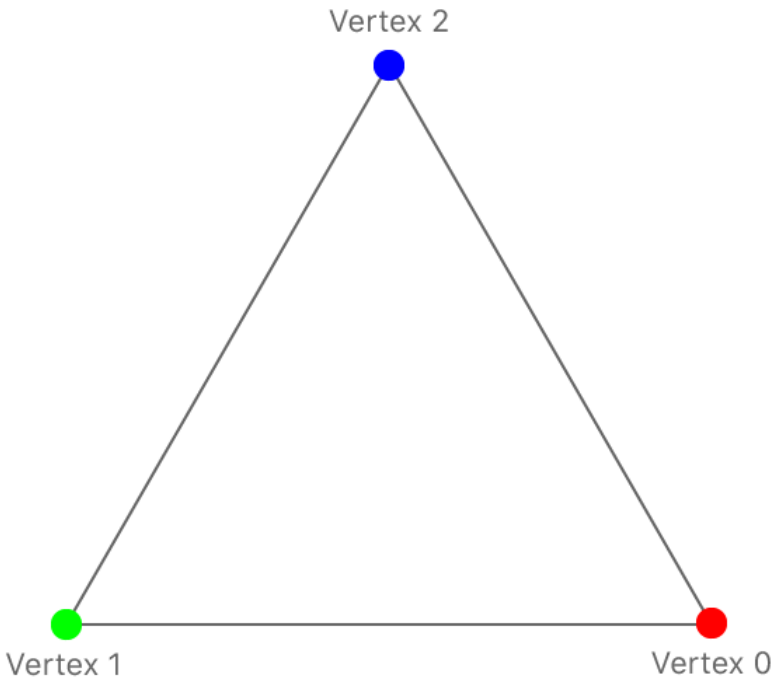
Explanation 0

The graph looks like this,



- N = 3, you can clearly see 3 nodes are present.
- X = Y = 0, source and destination are both node 0.
- T = 2
- M = 3, so 3 edges or paths are given.

Now the possible paths are:-

- 0 -> 1 -> 0
- 0 -> 2 -> 0

So ans is 2.

Now suppose T = 3,

Now the possible paths are:-

- 0 -> 1 -> 2 -> 0
- 0 -> 2 -> 1 -> 0

Here also answer is 2.

Now suppose T = 1,

Here no possible path exists.

So output "not possible" (without quotes)