

Description

Hints

</> Submissions

Discussions

Notifications

Building Roads

1 sec

512000KB

100

Difficulty

Time Limit

Memory

Score

80/80 XP

30/30

Description

Zenithland has n cities and m roads between them. The goal is to construct new roads so that there is a route between any two cities. A road is bidirectional.

Your task is to find out the minimum number of roads required.

Input Format

The first input line has two integers n and m : the number of cities and roads. The cities are numbered 1, 2, ..., n .

After that, there are m lines describing the roads. Each line has two integers a and b : there is a road between those cities.

A road always connects two different cities, and there is at most one road between any two cities.

Output Format

Print the number of minimum roads required.

C++14

00:00:00

12 px

```
1  #include<bits/stdc++.h>
2  using namespace std;
3  #define endl "\n"
4  using lli=long long int;
5  using pp=pair<lli,lli>;
6  vector<vector<int>>g;
7  vector<int>vis;
8  void bfs(int node){
9      vis[node]=1;
10     queue<int>q;
11     q.push(node);
12     while(!q.empty()){
13         int ele=q.front();
14         q.pop();
15         for(auto i:g[ele]){
16             if(!vis[i]){
17                 vis[i]=1;
18                 q.push(i);
19             }
20         }
21     }
22 }
23
24 int main(){
25     ios_base::sync_with_stdio(0);
26     cin.tie(0);
27     cout.tie(0);
```

Sample Tests

Manual Tests

Test Case 1

Console

Run on Sample