

```

1  #include <bits/stdc++.h>
2  #define S second
3  #define F first
4  using namespace std;
5  typedef pair<int,int> ii;
6  typedef pair<int,ii> iii;
7  typedef vector<int> vi;
8  typedef vector<iii> viii;
9  int dy[] = {1,-1,0,0};
10 int dx[] = {0,0,1,-1};
11 bool Grafo[1001][1001];
12 int n,m;
13
14 bool valid(int i,int j){
15     if(Grafo[i][j]) return false;
16     if(i<0 or i>=n) return false;
17     if(j<0 or j>=m) return false;
18     return true;
19 }
20
21 int bfs(ii ini,ii dest){
22     queue<iii> q;
23     q.push(make pair(0,make pair(ini.F,ini.S)));
24     Grafo[ini.F][ini.S]=true;
25     while(!q.empty()){
26         iii x = q.front();
27         ii p = x.second;
28         q.pop();
29         if(x.second == dest)
30             return x.first;
31         for(int i=0;i<4;i++){
32             if(valid(p.first+dy[i],p.second+dx[i])){
33                 Grafo[p.first+dy[i]][p.second+dx[i]] = true;
34                 q.push(make pair(x.first+1,make pair(p.first+dy[i],p.second+dx[i])));
35             }
36         }
37     }
38 }
39
40 }
41
42 main(){
43     ios base::sync with stdio(0);
44     cin.tie(0);
45     int l,c,i,j,k,z,xi,yi,xd,yd,b;
46     while(cin >> n >> m and n and m){
47         cin >> z;
48         for(i=0;i<n;i++){
49             for(j=0;j<m;j++){
50                 Grafo[i][j] = false;
51             }
52         }
53         for(i=0;i<z;i++){
54             cin >> l >> b;
55             for(j=0;j<b;j++){
56                 cin >> c;
57                 Grafo[l][c] = true;
58             }
59         }
60         cin >> xi >> yi;
61         cin >> xd >> yd;
62         cout << bfs(make pair(xi,yi),make pair(xd,yd)) <<"\n";
63     }
64 }
65
66

```