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Cycle of Edges

Problem

Submissions

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Submitted 10 minutes ago • Score: 25.00

Status: **Accepted**

✓	Test Case #0	✓	Test Case #1	✓	Test Case #2
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✓	Test Case #15	✓	Test Case #16	✓	Test Case #17
✓	Test Case #18	✓	Test Case #19	✓	Test Case #20
✓	Test Case #21	✓	Test Case #22		

Submitted Code

Language: C++20

Open in editor

```
1 #include<bits/stdc++.h>
2 using namespace std;
3
4 //DSU_UNION_BY_SIZE
5 const int N = 1e5+5;
6 int parent[N];
7 int parentSize[N];
8
9 void dsu_set(int n)
10 {
11     for(int i = 1; i<=n; i++)
12     {
13         parent[i] = i;
14         parentSize[i] = 1;
15     }
16 }
17
18 int dsu_find(int node)
19 {
20     while(parent[node] != node)
21     {
22         node = parent[node];
23     }
24     return node;
25 }
```

```
26
27 // This is union by size
28 void dsu_union(int a, int b)
29 {
30     int leaderA = dsu_find(a);
31     int leaderB = dsu_find(b);
32     if(leaderA != leaderB)
33     {
34         if(parentSize[leaderA] > parentSize[leaderB])
35         {
36             // Leader is 'A'
37             parent[leaderB] = leaderA;
38             parentSize[leaderA] += parentSize[leaderB];
39         }
40         else
41         {
42             // Leader is 'B'
43             parent[leaderA] = leaderB;
44             parentSize[leaderB] += parentSize[leaderA];
45         }
46     }
47 }
48 }
49
50
51 int cnt = 0;
52 int main()
53 {
54
55     int n , m;
56     cin >> n >> m;
57     dsu_set(n);
58     for(int i = 1; i<=m; i++)
59     {
60         int u, v;
61         cin>> u >> v ;
62         int leaderA = dsu_find(u);
63         int leaderB = dsu_find(v);
64         if(leaderA == leaderB)
65             cnt++;
66         dsu_union(u,v);
67     }
68
69     cout<<cnt<<endl;
70
71     return 0;
72 }
```