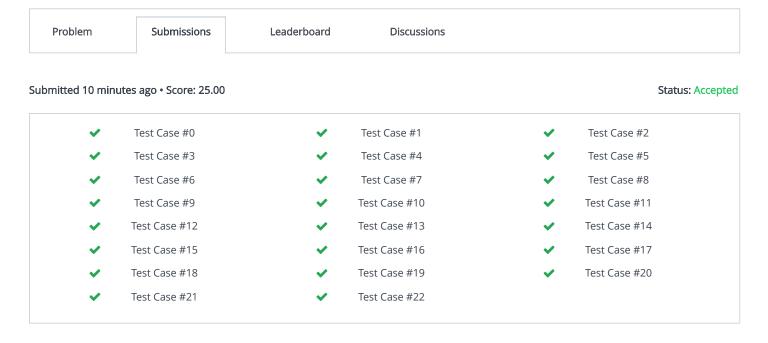
Q Search

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Cycle of Edges



Submitted Code

```
Language: C++20
                                                                                                P Open in editor
1 #include<bits/stdc++.h>
2 using namespace std;
4 //DSU_UNION_BY_SIZE
5 const int N = 1e5+5;
6 int parent[N];
7 int parentSize[N];
9 void dsu_set(int n)
10 {
       for(int i = 1; i<=n; i++)
11
12
13
           parent[i] = i;
           parentSize[i] = 1;
14
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 }
```

```
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
           if(parentSize[leaderA] > parentSize[leaderB])
34
35
                // Leader is 'A'
36
37
               parent[leaderB] = leaderA;
38
               parentSize[leaderA] += parentSize[leaderB];
           }
39
40
           else
41
           {
42
43
                // Leader is 'B'
44
               parent[leaderA] = leaderB;
45
               parentSize[leaderB] += parentSize[leaderA];
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);
           int leaderB = dsu_find(v);
63
           if(leaderA == leaderB)
64
65
           cnt++;
66
           dsu_union(u,v);
       }
67
68
69
       cout<<cnt<<endl;</pre>
70
71
       return 0;
72 }
```

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