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// C++ implementation of disjoint set
#include <iostream>
using namespace std;
class DisjSet {
        int *rank, *parent, n;
public:
        // Constructor to create and
        // initialize sets of n items
        DisjSet(int n)
                rank = new int[n];
                parent = new int[n];
                this->n = n;
                makeSet();
        }
        // Creates n single item sets
        void makeSet()
                for (int i = 0; i < n; i++) {
                        parent[i] = i;
                }
        }
        // Finds set of given item x
        int find(int x)
                // Finds the representative of the set
                // that x is an element of
                if (parent[x] != x) {
                        // if x is not the parent of itself
                        // Then x is not the representative of
                        // his set,
                        parent[x] = find(parent[x]);
                        // so we recursively call Find on its parent
                        // and move i's node directly under the
                        // representative of this set
                }
                return parent[x];
        }
        // Do union of two sets represented
        // by x and y.
        void Union(int x, int y)
        {
                // Find current sets of x and y
                int xset = find(x);
                int yset = find(y);
                // If they are already in same set
                if (xset == yset)
                        return;
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// Put smaller ranked item under
                 // bigger ranked item if ranks are
                 // different
                 if (rank[xset] < rank[yset]) {</pre>
                          parent[xset] = yset;
                 }
                 else if (rank[xset] > rank[yset]) {
                          parent[yset] = xset;
                 }
                 // If ranks are same, then increment
                 // rank.
                 else {
                          parent[yset] = xset;
                          rank[xset] = rank[xset] + 1;
                 }
        }
};
int main()
        DisjSet obj(5);
        obj.Union(0, 2);
        obj.Union(4, 2);
        obj.Union(3, 1);
        if (obj.find(4) == obj.find(0))
                 cout << "Yes\n";</pre>
        else
                 cout << "No\n";</pre>
        if (obj.find(1) == obj.find(0))
                 cout << "Yes\n";</pre>
        else
                 cout << "No\n";</pre>
        return 0;
}
```