HW5_P2- Remove duplicates from sorted list

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DriverMain.cpp

```
#include <iostream>
#include <sstream>
#include <cstdio>
#include <vector>
#include <algorithm> //std::sort

//Your program will be evaluated by this main method and several test cases.

// removed duplicate main
```

solution.cpp

```
#include <iostream>
#include <sstream>
#include <cstdio>
#include <vector>
#include <string>
#include <algorithm>
using namespace std;

/*
Analysis
Given a sorted list of integers, remove any elements that occur more than once, and return the final modified l

Design
We start at the second element and compare pairs of numbers. /
If the numbers are the same, we remove the second one.
We then move to the next element and repeat.
Once the index equals the list size, we can assume it is sorted.

*/

class ProblemSolution {
        public:
                int removeDuplicate(vector<int>& list);

};
int ProblemSolution::removeDuplicate(vector<int>& list) {
    //write your code here
    bool sorted = false;
    int index = 1;
    // start at the second element, comparing current to previous
    while(!sorted){
        // check if we have reached the end of the list
        if(index >= list.size()){

            sorted = true;
        } else {
            // compare current element value to previous element value
            if(list[index] == list[index - 1]){
                // erase if they are the same
```

```
                list.erase(list.begin() + index);
            } else {
                index = index + 1;
                // move to the next pair if they are the same
            }
        }
    }
    return list.size();
}

int main() {

        string line;
        int number;
        vector<int> numbers;
        getline(cin, line);
        istringstream stream(line);
        while (stream >> number)
                numbers.push_back(number);

        sort(numbers.begin(), numbers.end());

        ProblemSolution ps;
        cout <<  ps.removeDuplicate(numbers) << endl;

        return 0;
}
```

Name

Default

Input

1 1 2 2 3 3 4 4 5 5 5 67 7 6

Output (Lines:1)

8

Expected Output (Lines:1)

8

Status

Pass
