1 Problema 1

```
#include <cmath>
#include <iostream>
using namespace std;

int main() {
    cin.tie(NULL);
    ios_base::sync_with_stdio(false);
    bool jolly=true;
    int n=0;
    cin>>n;
    int v[n];
    int occ[n];
    for(int i=0;i<n;i++) occ[i] = 0;
    for(int i=0;i<n;i++) cin>>v[i];
    int d[n-1];
    for(int i=1;i<n;i++){
        d[i-1]=abs(v[i]-v[i-1]);
        if(d[i-1]>0 && d[i-1]<n) occ[d[i-1]]++;
        else jolly=false;
    }

    if(jolly == false)
            cout << "Not jolly\n";
        else{

            for(int i=1;i<=n-1 && jolly == true;i++){
                if(occ[i]!=1){
                    jolly = false;
                    cout << "Not jolly\n";
                }
            }
            }
    if(jolly==true) cout << "Jolly\n";
```

```
  return 0;
}
```

Complessità temporale dell'algoritmo implementato: O(n)

2 Problema 2

```
#include <cmath>
#include <iostream>
using namespace std;

int main() {
    cin.tie(NULL);
    ios_base::sync_with_stdio(false);
    int n=0;
    float v[1000];
    float sum=0.0;
    bool ok = false;
    while(!ok){
        sum=0.0;
        cin >> n;
        if(n == 0) ok = true;
        else{

        for(int i=0;i<n;i++) cin >> v[i];
        for(int i=0;i<n;i++){
            sum += v[i];
        }
        //approssima a 2 cifre significative
        //cout << "sum: " << sum << "  n: " << n << endl;
        float media=sum/n;
        //cout << "media: " << media << endl;
        int m= media *100;
        m=m/100;
        float x=0.0, y=0.0;
```

```
        for(int i=0;i<n;i++){
            if(v[i]>=m){
                x+=v[i]-m;
            }
            else{
                y+=m-v[i];
            }
        }

        if(x>y) cout << "\    " << y << "\n";
        else cout << "\    " << x << "\n";

        }
    }
        return 0;
}
```

Complessità temporale dell'algoritmo implementato: O(n)