Apuntes para Programación Competitiva

Template

```
#pragma GCC optimize("Ofast")
#include <bits/stdc++.h>
using namespace std;
#define rep(i, n) for (int i = 0; i < n;
++i)
#define rep_(i, k, n) for (int i = k; i <
n; ++i)
using ll = long long;

int main() {
  ios_base::sync_with_stdio(false);
  cin.tie(nullptr);
  cout.setf(ios::fixed);
  cout.precision(10);

  // Solution Here

  return 0;
}
```

Input y Output

Scanf y Printf

```
#include <cstdio>

scanf(" %d",&value); //int
scanf(" %ld",&value); //long y long int
scanf(" %c",&value); //char
scanf(" %f",&value); //float
scanf(" %lf",&value); //double
scanf(" %s",&value); //char*
scanf(" %lld",&value); //long long int
scanf(" %x",&value); //int hexadecimal
scanf(" %o",&value); //int octa
```

Cin y Cout

```
#include <iostream>

cin >> bar; // cualquier tipo de dato
cout << bar;
```

DP

Longest Increasing Subsequence

```
int LIS(vector<int> v) {
    vi L;
    int S = 0;
    for (int x : v) {
        int i = upper_bound(all(L), x) -
L.begin();
        if (i == S)
            L.push_back(x), S++;
        else
            L[i] = x;
    }
    return S;
}
```