Main Template

```
#include <bits/stdc++.h>
   using namespace std;
   #define endl '\n'
   #define getVec(arr, size) \
        vector<int> arr(size); \
        for (auto &input : arr) cin >> input;
9
    #define print(z, n)
       for (int i = 0; (n & i < n) || (!n & i < z.size()); i++) \
10
11
            cout << z[i] << ' ';
12
        cout << endl;</pre>
13
    #define FIO { ios_base::sync_with_stdio(false); cin.tie(nullptr); cout.tie(nullptr); }
15
16
    const int M = 1e9 + 7, 00 = 1e9;
17
   int dx[] = \{1, -1, 0, 0, 1, 1, -1, -1\};
   int dy[] = \{0, 0, 1, -1, -1, 1, -1, 1\};
20
   string dd[] = {"U", "D", "R", "L", "UL", "UR", "DL", "DR"};
21
22
   void solve(){
23
24
25
26
   signed main()
27
28
        FIO
29
30
        #ifndef ONLINE_JUDGE
31
            freopen("input.txt", "r", stdin);
            freopen("output.txt", "w", stdout);
32
33
        #endif
34
35
        int t = 1:
37
        for (int i = 1; i \le t; i ++)
38
39
            solve();
40
            cout << endl;</pre>
41
42
        // cerr << clock() / 1000.0 << " Secs";
43
44
   // ##### 3Bcaren0 ######
```

Ordered set

```
#include <ext/pb_ds/assoc_container.hpp>
#include <ext/pb_ds/tree_policy.hpp>
using namespace __gnu_pbds;
#define ordered_set tree<int, null_type,less</pre>, rb_tree_tag,tree_order_statistics_node_update>// set

typedef tree<int, null_type,less_equal<int>, rb_tree_tag,tree_order_statistics_node_update> ordered_multiset;
```

Interactive and Receive

Print int128

```
void print_int128(__int128 n) {
 1 int answer(vector<int> have){
                                                    if (n = 0) {
 2
                                                          cout << "0";
 3
        cout << "? ";
                                                          return;
        for(auto &x: have) cout << x << ' ';</pre>
        cout << endl;</pre>
                                                    string s;
                                                     while (n > 0) {
                                                         s += '0' + (n \% 10);
        cout.flush();
                                                         n \neq 10;
                                            10
        int ans; cin >> ans;
                                            11
                                                     reverse(s.begin(), s.end());
10
        return ans;
                                            12
                                                     cout << s;
11 }
                                            13 }
```

Random

```
1 std::mt19937_64 rnd(std::chrono::system_clock::now().time_since_epoch().count());
2
3    int l = LLONG_MIN, r = LLONG_MAX;
4    // Generate a random number between l and r
5    uniform_int_distribution<int> dist(l, r);
6    int random_number = dist(rnd);
```