Pbds

```
#include<bits/stdc++.h>

#include<ext/pb_ds/assoc_container.hpp>
#include<ext/pb_ds/tree_policy.hpp>

using namespace std;
using namespace __gnu_pbds;

typedef tree<int, null_type, less<int>, rb_tree_tag,
tree_order_statistics_node_update> pbds; // find_by_order,
order_of_key

int main() {
    pbds A; // declaration
    // finding kth element - 4th query
    cout << "0th element: " << *A.find_by_order(0) << endl;
    cout << "No. of elems smaller than 6: " <<
A.order_of_key(6) << endl; // 2
    // lower bound -> Lower Bound of X = first element >= X
in the set
    cout << "Lower Bound of 6: " << *A.lower_bound(6) <<
endl;
    // Upper bound -> Upper Bound of X = first element > X in
the set
    cout << "Upper Bound of 6: " << *A.upper_bound(6) <<
endl;
    // // Remove elements - 2nd query
    A.erase(1);
    A.erase(11); // element that is not present is not
affected
}
```