

C++ Cheatsheet

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1 Initial Template

Uncomment line 5-9 if external library is needed.

```
1 #include <bits/stdc++.h>
2 using namespace std;
3 #define FASTIO ios::sync_with_stdio(false);cin.tie(
  NULL);
4 #define DECI fixed<<setprecision(5)
5 // #include <ext/pb_ds/assoc_container.hpp>
6 // #include <ext/pb_ds/tree_policy.hpp>
7 // using namespace __gnu_pbds;
8 // typedef tree<int,null_type,less<int>,rb_tree_tag,
  tree_order_statistics_node_update> indexed_set;
9 // typedef tree<int,null_type,less_equal<int>,
  rb_tree_tag,tree_order_statistics_node_update>
  indexed_multiset;
10 typedef long long ll;
11 typedef unsigned long long ull;
12 typedef long double ld;
13 typedef vector<int> vi;
14 typedef vector<vector<int>> vvi;
15 typedef pair<int,int> pii;
16 typedef priority_queue<int> pqi;
17 typedef deque<int> di;
18 #define pb(k) push_back(k)
19 #define mp(a,b) make_pair(a,b)
20 #define B begin();
21 #define E end();
22 #define nl cout<<"\n"
23 #define DB(x) {static int testInt=1000;if((testInt--
  >0)cout<<"(LINE "<<__LINE__<<": VALUE "<<x<<")\t"
  ;}
24 #define LB {static int testIntx=0;if(testIntx<1000)
  cout<<"(LINE "<<__LINE__<<","<<testIntx+1<<")\t";
  else break;testIntx++;}
25 #define TA(arr) {int* lLe=(int*)&arr+1;for(int* xTe=
  arr;xTe!=lLe;xTe++) cout<<*xTe<<" ";nl;}
26 #define nax 1000000007
27 /*****/
28
29 int main() {
30     FASTIO
31     int t; cin >> t; while(t--> {
32         LB
33     }
34     return 0;
35 }
```

2 STL Library

2.1 Containers

vector

deque

list

forward_list

map

unordered_map

multimap

unordered_multimap

set

unordered_set

multiset

unordered_multiset

stack

queue

priority_queue

pair

tuple

tree

2.2 Algorithms

sort

reverse

max_element

min_element

accumulate

count

find

binary_search

lower_bound

upper_bound

next_permutation

prev_permutation

distance

partition

stable_partition

is_partitioned

partition_point

rotate

min

max

swap

__gcd

__builtin_popcount

3 Algorithms

4 Useful Results