

I/O related

- Did you print “Yes” when asked to print “YES”?
- Is your output format correct?
- When printing debugging statement, use `<<endl` instead of `<<'\n'`
- Did you print enough decimal places?
- Are you intermixing `printf()` and `cout`?
- In a string problem, does the input string contain lower case or upper case letters
- Is the input using 0-indexing or 1-indexing? Is your code using 0-indexing or 1-indexing?

Weird Input

- What if the input graph is not connected?
- Can the input contain duplicates (multiple strings)?

Housekeeping

- Clear common resources between test cases
- Clear debug output before submitting the code
- Are there uninitialized variables (watch out for undefined behavior)?
- Remember to `return 0;` after dealing with small edge case

Logical Error

- Are you assuming something that isn't stated in the problem?
- Did you confuse i and j ?
- Did you forget to $+1$ or -1 ?
- Did you confuse i and $id[i]/rank[i]$?
- Create a copy of the bit mask before modifying it
- Be careful with the last iteration of binary search
- On a tree, did you give special treatment to the root and leaf?
- Remember the root can be a leaf
- Did you initialize `max_val` to `-inf` and `min_val` to `inf` before using them?
- Do you need a function to pass by value or pass by reference?
- When building a flow network for bipartite matching, did you offset the nodes correctly?
- Fenwick tree is 1-indexed
- Did you divide by 0?
- Did you visit an array index that is out of bound? (CLion won't warn you about that!)
- Did you forget to update certain variables when you should
- If a sample case WA, it's probably because undefined behavior

Boundary case/Extreme input

- Can you get Integer overflow?
- Is INF large enough?

- Is MOD large enough?
- Is MOD too well-known?

Do you really know C++

- `vector.push_back()` stores a **copy** of the input argument
- Did you modify a container while iterating through it?
- `v.size()` returns an unsigned integer, `v.size()-X` might overflow for $X > v.size()$
- `%` don't work as intended with negative numbers
- In a compound expression, is the order of operations really how you think it is?
- `priority_queue` is a max heap
- `memset()` only work as intended with 0 and -1
- Parenthesize everything before `%`
- Add `LL` after type long long number
- `std::sort` would runtime error if the comparator fails to provide a strict weak ordering

Misc

- When copying the code, make sure to change everything you need to change
- When using max-flow for bipartite matching, make sure your flow graph is directed
- When multiple test cases are in a testfile, always test multiple test cases in one input
- When doing permutation of array, be extra careful of the original order and the new order
- When dealing with lexicographical order, remember to consider prefix containment
- When doing computational geometry, what if two points have the same x,y coordinates

When TLE

- Did you pass a giant vector by value?