Array:

[UVA-484](https://uva.onlinejudge.org/index.php?option=onlinejudge&page=show_problem&problem=425)(Department of Redundancy Department)

Given a set of numbers and all the numbers except one number appeared in the set are even times. Find the number with odd frequency.

If the numbers are <= 10e6?

If the numbers are >10e9?

Queue:

[UVA-540](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=629&page=show_problem&problem=481) (Given members of N teams. Each time there will be “*enque id*”and “*deque*” operation in enque the specific id will sit just behind his teammates. For deque print the most front element of the queue.)

[UVA-12207](https://uva.onlinejudge.org/external/122/12207.pdf)(N=1000000000 people are standing in a queue. There will be Q=1000 operation each time 1. Bring an people to the front of the queue

2. Answer who will get service now.

Stack:

[UVA-673](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&page=show_problem&problem=614)\*(Parentheses Balance)

[UVA-514](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=628&page=show_problem&problem=455) \*\*(Rails)

[CodeForces-190C](http://codeforces.com/problemset/problem/190/C)\*\*(STL)

Postfix Expression Evaluation

Prefix Expression Evaluation

Infix to Postfix: [UVA-727](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&page=show_problem&problem=668)(Given an infix notation convert to postfix.)

[UVA-11234](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&page=show_problem&problem=2175)\*\*\*(Given a postfix notation. Convert the notation so that using the queue to the resulting notation gives the same output as the postfix expression)

[LightOj-1083](http://www.lightoj.com/volume_showproblem.php?problem=1083) Histogram\*\*\*

[LightOj-1424](http://www.lightoj.com/volume_showproblem.php?problem=1424) Maximum Rectangle\*\*\*

LinkedList:

1. Linked List

2. Doubly Linked List

Problem List:

[UVA 11988](https://uva.onlinejudge.org/external/119/11988.pdf)(Broken Keyboard),

Resource:

<http://cslibrary.stanford.edu/105/LinkedListProblems.pdf>

<https://www.hackerrank.com/domains/data-structures/linked-lists>

Map:

[UVA-10295](https://uva.onlinejudge.org/index.php?option=onlinejudge&page=show_problem&problem=1236) ( Given a set of words and their weight. A line will be given you have to calculate the summation of all weights of its each word Example: CV Ranking.)

[UVA-10282](https://uva.onlinejudge.org/index.php?option=onlinejudge&page=show_problem&problem=1223)(Given a set of English words and their meaning in a Bangla language. Now for each word of the English language what will be its meaning in Bangla.)

<http://www.spoj.com/problems/ACMCEG2B/> (The first line contains an integer n, the number of figures. Then in each of the next n lines there will be 2 integers and a figure name.

After that there will be an integer t, the number of test cases. For each test case, there will be two integers representing the code word. Print the figure’s name corresponding to the code word.)

(Be careful on finding an element in a map. For safety use map.find() ).

[UVA-11286](http://uva.onlinejudge.org/external/112/11286.pdf)(Given subject selection (5 subjects)of each student of a department. Calculate the max student size who has chosen the most popular subject combination.)

Set:

[UVA-11849](https://uva.onlinejudge.org/external/118/11849.pdf)(Given two sets find out #elements in their intersection set.)

[UVA-11136](https://uva.onlinejudge.org/external/111/11136.pdf)(MultiSet.)

Given a dynamic array each time their will two types of query.

1. Add a number to the set.

2. Retrieve the maximum and minimum element and calculate their difference )

[UVA-11572](https://uva.onlinejudge.org/external/115/11572.pdf)(Given an array of N numbers. Find out max subarray having all the distinct numbers.)

Deque::

[LeetCode-239](https://leetcode.com/problems/sliding-window-maximum/description/)

<http://www.spoj.com/problems/ACMCEG2C/> (Pick the candies)

[UVA-1121](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=792&page=show_problem&problem=3562)

(A sequence of N positive integers (10 < N < 100 000), each of them less than or equal 10000, and a positive integer S (S < 100 000 000) are given. Write a program to find the minimal length of the subsequence of consecutive elements of the sequence, the sum of which is greater than or equal to S.)

[UVA-11536](https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=792&page=show_problem&problem=2531)

(Consider an example where N = 20 and K = 4.

The sequence is {1 2 3 7 1 12 9 11 9 6 3 7 5 4 5 3 1 10 3 3}. The smallest subsequence that contains all the integers[1,K] {1 2 3 4} has length 13 and is highlighted in the following sequence: )

Priority Queue

[UVA-11995](https://uva.onlinejudge.org/external/119/11995.pdf)(Guess the data structure)

[UVA-10954](https://uva.onlinejudge.org/external/109/10954.pdf)(Given a set of numbers. You have to add them all. For each addition operation the cost will be summation of two numbers. Minimize the total cost.)

[UVA-1203](https://uva.onlinejudge.org/external/12/1203.pdf) (Given a set of tasks with id(ID) and their priorities(P). After processing each tasks their priorities incremented P. Print the first K tasks to be processed based on their priority.)

UVa 10020 (requires structure sort)

<https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&page=show_problem&problem=961>

UnionFind:

TBA

Graph Representation:

TBA