

INTERVIEW TOPICS AND QUESTIONS

C++ Basics

Header files - bits/stdc++.h	
Keywords	
Data types- long,short,signed,unsigned	
Pseudo code	
Scope of variables - global,local,block	
Printf, scanf, fast input output	
Pass by value, pass by reference	
How to take infinite input	
bits/stdc++ - header file	
Oops concept	
Precedence of operators	
Struct, class, difference b/w them	
Variables declaration	
Comments	
Loops, data types, if else	Find min/max of 3 numbers
Pattern ques	Form different types of patterns -diamond, triangle, empty square
Finding time complexity	Practice ques on finding time complexity
Stl in c++	Implement vector, pair
Prime number	Checking prime number in sqrt(n), sieve,find smallest prime factor
Bitwise operations	Check if a number if a power of 2 or not in O(1)
Or, not, and, xor, <<, >>	Count total set bits
	Divide Integers without / operator
	Power Set (this is very important)
	Find the square of a number without using multiplication or division
#define, macros, templates (for cp)	
Number theory basics	Basics concepts- min,max,gcd,lcm
	Binary to decimal, finding number of 1 in

Puzzles	binary rep Count digits of number, reverse a number Factorial of a number Palindrome, armstrong number Npr, ncr, pigeonhole principle Fast expo
---------	--

Extra Topics - modulus operator, fibonacci(naive, recursion, matrix, binet's), tribonacci, catalan numbers, euclid

<https://leetcode.com/problems/factorial-trailing-zeroes/>

<https://leetcode.com/problems/valid-palindrome/>

<https://practice.geeksforgeeks.org/problems/power-of-numbers-1587115620/1>

<https://leetcode.com/problems/powx-n/>

<https://leetcode.com/problems/super-pow/>

<https://leetcode.com/problems/number-of-digit-one/>

<https://leetcode.com/problems/count-numbers-with-unique-digits/>

<https://leetcode.com/problems/clumsy-factorial/>

<https://leetcode.com/problems/unique-binary-search-trees/>

Arrays

Array manipulation	Rearranging array - reverse, alternate +-, odd even(+), find min,max(kth) Find duplicate in array1-n Find repeating and missing number Find majority element Union and intersection of k arrays Max product subarray,subsequence
Subarray, subsequence	
Searching - linear, binary (ternary optional)	Search in rotated sorted array Find sqrt of number Book allocation, aggressive cows, painters problem Median of 2 arrays(same different size)
Sorting - selection, bubble, insertion, merge, quick and count sort and wave sort	Sort array of 0,1,2 only - Three way partitioning Inversion count Union intersection of 2 sorted arrays

	Merge 2 sorted arrays without extra space K-th element of two sorted arrays Merge overlapping intervals Remove duplicate from sorted arrays Largest consecutive subsequence
Two pointer approach	Kadane's algorithm Trapping rainwater problem Stock buy sell problems(3-4)
Circular array	Max subarray sum circular
Prefix sum, diff array	Find sum in a range in constant time Update in a range also
2 d arrays manipulation	Matrix - transpose, rotation, print spiral, staircase search Set matrix zero Median of row wise sorted matrix Kth smallest element
Sliding window	Max sum subarray of size k Max continuous number of 1's
Divide and conquer	1/N-th root of an integer (use binary search) (square root, cube root, ..) Unique number - I, II, III Polynomial Multiplication (https://www.geeksforgeeks.org/multiply-two-polynomials-2/)

Extra Topics - lower, upper bound, 2 sum using 2 pointers, Stl - sort (comp function)

Extra Questions -

<https://practice.geeksforgeeks.org/problems/product-array-puzzle4525/1>

<https://practice.geeksforgeeks.org/problems/sort-by-set-bit-count1153/1>

<https://www.hackerearth.com/practice/algorithms/searching/binary-search/practice-problems/algorithms/bishu-and-soldiers/>

<https://practice.geeksforgeeks.org/problems/smallest-factorial-number5929/1>

<https://practice.geeksforgeeks.org/problems/arithmetic-number2815/1>

<https://www.geeksforgeeks.org/given-an-array-of-of-size-n-finds-all-the-elements-that-appear-more-than-nk-times/>

<https://practice.geeksforgeeks.org/problems/chocolate-distribution-problem/0>
<https://practice.geeksforgeeks.org/problems/smallest-subarray-with-sum-greater-than-x/0>
<https://practice.geeksforgeeks.org/problems/minimum-swaps/1>
<https://www.geeksforgeeks.org/rearrange-array-maximum-minimum-form-set-2-o1-extra-space/>
 Minimum-swaps-required-to-bring-all-elements-less-than-or-equal-to-k-together
<https://www.geeksforgeeks.org/find-a-specific-pair-in-matrix/>
<https://practice.geeksforgeeks.org/problems/max-rectangle/1>
<https://practice.geeksforgeeks.org/problems/sorted-matrix/0>
<https://practice.geeksforgeeks.org/problems/number-of-subsets-and-mean1225/1>
<https://www.geeksforgeeks.org/searching-array-adjacent-differ-k/>
<https://www.geeksforgeeks.org/optimum-location-point-minimize-total-distance/#:~:text=We%20need%20to%20find%20a,set%20of%20points%20is%20minimum.&text=In%20above%20figure%20Optimum%20location,is%20minimum%20obtainable%20total%20distance.>
<https://www.spoj.com/problems/PRATA/>
<https://www.spoj.com/problems/ANARC05B/>
<https://www.spoj.com/problems/SUBSUMS/>
<https://www.geeksforgeeks.org/in-place-merge-sort/>

Strings, Greedy

<p>Subsequence, substring</p> <p>Pattern matching</p>	<p>Reverse Words in a String</p> <p>Check palindrome</p> <p>Find duplicate characters in a string</p> <p>Check whether one string is rotation(shuffle also) of another</p> <p>Print all subsequences of string</p> <p>Find all permutations of string</p> <p>Find next greater number with same set of digits</p> <p>Longest Palindrome substring in a string</p> <p>Roman Number to Integer and vice versa</p> <p>Implement ATOI/STRSTR</p> <p>Longest Common Prefix</p> <p>Prefix Function/Z-Function</p> <p>Check for Anagrams</p> <p>KMP</p>
---	--

	Rabin karp Boyer Moore Algorithm
--	-------------------------------------

Extra questions -

- <https://practice.geeksforgeeks.org/problems/min-number-of-flips/0>
- <https://leetcode.com/problems/longest-common-prefix/>
- <https://practice.geeksforgeeks.org/problems/consecutive-elements/0>
- <https://practice.geeksforgeeks.org/problems/roman-number-to-integer3201/1>
- <https://leetcode.com/problems/count-and-say/>
- <https://practice.geeksforgeeks.org/problems/wildcard-string-matching/0>
- <https://www.geeksforgeeks.org/split-the-binary-string-into-substrings-with-equal-number-of-0s-and-1s/>
- <https://practice.geeksforgeeks.org/problems/find-the-string-in-grid/0>
- <https://www.geeksforgeeks.org/find-count-number-given-string-present-2d-character-array/>
- <https://practice.geeksforgeeks.org/problems/minimum-swaps-for-bracket-balancing/0>
- <https://www.geeksforgeeks.org/program-generate-possible-valid-ip-addresses-given-string/>
- <https://practice.geeksforgeeks.org/problems/smallest-distant-window/0>
- <https://practice.geeksforgeeks.org/problems/rearrange-characters/0>
- <https://practice.geeksforgeeks.org/problems/smallest-window-in-a-string-containing-all-the-characters-of-another-string-1587115621/1>
- <https://www.geeksforgeeks.org/function-to-find-number-of-customers-who-could-not-get-a-computer/>
- <https://practice.geeksforgeeks.org/problems/isomorphic-strings-1587115620/1>

Linked List, Stacks and Queues

Linked list	Reverse of linked list
Pointers manipulation	Middle of linked list
2 pointer approach	Merge 2 sorted list
	Rotate a ll
	Remove nth node from end of list
	Delete a given node when pointer to node is given (O(1) time)
Sorting a ll - merge, quick, insertion	Add two numbers as linked list
	Find intersection point of y linked list
	Detect cycle in linked list
	Find starting point of cycle of ll
	Flattening of ll
	Reverse ll in size of k

<https://www.geeksforgeeks.org/reverse-doubly-linked-list-groups-given-size/>
<https://www.geeksforgeeks.org/find-pairs-given-sum-doubly-linked-list/>
<https://www.geeksforgeeks.org/count-triplets-sorted-doubly-linked-list-whose-sum-equal-given-value-x/>
<https://www.geeksforgeeks.org/sort-k-sorted-doubly-linked-list/>
<https://practice.geeksforgeeks.org/problems/flattening-a-linked-list/1>
<https://practice.geeksforgeeks.org/problems/count-the-reversals/0>
<https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream/0>

Stack & queues

<https://practice.geeksforgeeks.org/problems/reverse-a-string-using-stack/1>
[https://www.geeksforgeeks.org/arithmetic-expression-evaluation/#:~:text=The%20stack%20organization%20is%20very,i.e.%2C%20A%20%2B%20B\).](https://www.geeksforgeeks.org/arithmetic-expression-evaluation/#:~:text=The%20stack%20organization%20is%20very,i.e.%2C%20A%20%2B%20B).)
<https://practice.geeksforgeeks.org/problems/sort-a-stack/1>
<https://practice.geeksforgeeks.org/problems/valid-substring0624/1>
<https://www.geeksforgeeks.org/implement-stack-queue-using-deque/>
<https://practice.geeksforgeeks.org/problems/queue-reversal/1>
<https://practice.geeksforgeeks.org/problems/reverse-first-k-elements-of-queue/1>
<https://practice.geeksforgeeks.org/problems/first-negative-integer-in-every-window-of-size-k/0>
<https://www.geeksforgeeks.org/stack-permutations-check-if-an-array-is-stack-permutation-of-other/>
<https://www.geeksforgeeks.org/expression-contains-redundant-bracket-not/>
<https://practice.geeksforgeeks.org/problems/the-celebrity-problem/1> (imp)
<https://www.geeksforgeeks.org/design-a-stack-with-find-middle-operation/>
<https://www.geeksforgeeks.org/interleave-first-half-queue-second-half/>
<https://practice.geeksforgeeks.org/problems/circular-tour/1>
<https://practice.geeksforgeeks.org/problems/maximum-of-all-subarrays-of-size-k3101/1>
 LRU cache (vvvv. imp)
<https://www.geeksforgeeks.org/efficiently-implement-k-queues-single-array/>

Recursion and Backtracking

Recursion	Binary search Fast expo Gcd Merge sort Quick sort Tower of hanoi
-----------	---

<p>Backtracking</p>	<p>Check if string is palindrome or not 2 sum problem (same which was done in arrays) Reverse a linked list Find length of linked list Reverse a stack using recursion Sort the stack using recursion https://www.geeksforgeeks.org/print-all-combinations-of-given-length/ Count substrings that start and end with same characters in string recursively Next permutation Find all subsets</p> <p>N queens Problem Sudoku Rat in a Maze Print all Permutations of a string/array Print all subsequences of string/array Find all possible string from numeric phone keypad Word Break (print all ways) Combination sum-1 Combination sum-2 Palindrome Partitioning Subset Sum-1 Subset Sum-2 K-th permutation Sequence M coloring Problem (Graph prob)</p>
---------------------	--

Extra -

<https://www.geeksforgeeks.org/convert-sentence-equivalent-mobile-numeric-keypad-sequence/>
<https://practice.geeksforgeeks.org/problems/word-break1352/1>
<https://practice.geeksforgeeks.org/problems/longest-repeating-subsequence/0>
<https://practice.geeksforgeeks.org/problems/count-palindromic-subsequences/1>
<https://www.geeksforgeeks.org/recursively-print-all-sentences-that-can-be-formed-from-list-of-word-lists/>
<https://leetcode.com/problems/remove-invalid-parentheses/>

<https://www.geeksforgeeks.org/longest-possible-route-in-a-matrix-with-hurdles/>
<https://www.geeksforgeeks.org/find-if-there-is-a-path-of-more-than-k-length-from-a-source/>
<https://practice.geeksforgeeks.org/problems/largest-number-in-k-swaps-1587115620/1>
<https://practice.geeksforgeeks.org/problems/combination-sum-1587115620/1>
<https://www.geeksforgeeks.org/find-shortest-safe-route-in-a-path-with-landmines/>
<https://www.geeksforgeeks.org/tug-of-war/>
<https://www.geeksforgeeks.org/the-knights-tour-problem-backtracking-1/>
<https://www.geeksforgeeks.org/find-the-k-th-permutation-sequence-of-first-n-natural-numbers/>
<https://practice.geeksforgeeks.org/problems/partition-array-to-k-subsets/1>
<https://www.geeksforgeeks.org/print-all-possible-paths-from-top-left-to-bottom-right-of-a-mxn-matrix/>

Heaps, Tries and Hashmaps

Heaps	https://www.youtube.com/watch?v=t0Cq6tVN_RBA Implement min and max heap (recursion,iteration) Heapify function- up and down Heap sort Max element in array Kth smallest and largest element in array Kth largest sum contiguous subarray of same length m Max sum subarray of size k Find median in a stream of running integers K-th largest element in a stream. Merge k arrays(If also) in sorted order Merge 2 binary max heaps
Tries	Implement trie
Hashmaps	2 sum, 3 sum, 4 sum Count subarrays with 0 sum Largest subarray with 0 sum Count number of subarrays with XOR Longest substring without repeat Distinct numbers in sliding window. Intersection of k arrays

<https://www.geeksforgeeks.org/hashing-data-structure/>

hashmaps

<https://practice.geeksforgeeks.org/problems/second-most-repeated-string-in-a-sequence0534/1>

<https://practice.geeksforgeeks.org/problems/print-anagrams-together/1>

Heaps

<https://practice.geeksforgeeks.org/problems/is-binary-tree-heap/1>

<https://leetcode.com/problems/reorganize-string/>

<https://practice.geeksforgeeks.org/problems/find-smallest-range-containing-elements-from-k-lists/1>

<https://practice.geeksforgeeks.org/problems/minimum-cost-of-ropes-1587115620/1>

<https://www.geeksforgeeks.org/convert-bst-min-heap/>

<https://www.geeksforgeeks.org/convert-min-heap-to-max-heap/>

<https://practice.geeksforgeeks.org/problems/rearrange-characters/0>

<https://practice.geeksforgeeks.org/problems/minimum-sum4058/1>

<https://www.geeksforgeeks.org/find-first-non-repeating-character-stream-characters/>

Easy:

<https://leetcode.com/problems/kth-largest-element-in-an-array/>

<https://leetcode.com/problems/merge-k-sorted-lists/>

Intermediate:

<https://www.geeksforgeeks.org/median-of-stream-of-running-integers-using-stl/>

Hard:

<https://leetcode.com/problems/top-k-frequent-elements/>

<https://leetcode.com/problems/sliding-window-maximum/>

<https://www.geeksforgeeks.org/find-k-closest-numbers-in-an-unsorted-array/>

Competitive:

<https://www.codechef.com/problems/ANUMLA>

<https://www.codechef.com/problems/CLKLZM>

Tries

<https://practice.geeksforgeeks.org/problems/unique-rows-in-boolean-matrix/1>

<https://www.geeksforgeeks.org/find-all-shortest-unique-prefixes-to-represent-each-word-in-a-given-list/>

<https://www.geeksforgeeks.org/word-break-problem-trie-solution/>

<https://practice.geeksforgeeks.org/problems/print-anagrams-together/1>

<https://practice.geeksforgeeks.org/problems/phone-directory/0>

Basic:

<https://leetcode.com/problems/design-add-and-search-words-data-structure/>

<https://leetcode.com/problems/maximum-xor-with-an-element-from-array/>

<https://leetcode.com/problems/implement-magic-dictionary/>

Intermediate:

<https://www.geeksforgeeks.org/count-pairs-having-bitwise-xor-less-than-k-from-given-array/>

<https://www.geeksforgeeks.org/pair-of-strings-having-longest-common-prefix-of-maximum-length-in-given-array/>

Competitive: (Basic)

<https://codeforces.com/problemset/problem/455/B>

<https://www.codechef.com/problems/NPLFLF>

Intermediate:

<https://codeforces.com/problemset/problem/706/D>

Greedy

N meeting in one room -

<https://practice.geeksforgeeks.org/problems/n-meetings-in-one-room-1587115620/1>

Activity Selection

Job scheduling (weighted also)

<https://practice.geeksforgeeks.org/problems/job-sequencing-problem-1587115620/1>

Greedy algorithm to find minimum number of coins

<https://practice.geeksforgeeks.org/problems/coin-piles/0>

Fractional Knapsack Problem

<https://practice.geeksforgeeks.org/problems/fractional-knapsack-1587115620/1>

Minimum number of platforms required for a railway

Medium:

<https://www.geeksforgeeks.org/assign-mice-holes/>

<https://www.geeksforgeeks.org/job-sequencing-problem/>
<https://www.interviewbit.com/problems/distribute-candy/>
<https://leetcode.com/problems/minimum-number-of-frogs-croaking/>

Hard:

<https://www.geeksforgeeks.org/policemen-catch-thieves/>
<https://www.geeksforgeeks.org/minimum-swaps-bracket-balancing/>
<https://www.interviewbit.com/problems/seats/>

Competitive:

1. <https://codeforces.com/problemset/problem/1291/A>
2. <https://codeforces.com/problemset/problem/1375/B>
3. <https://codeforces.com/problemset/problem/1294/C>
4. <https://codeforces.com/problemset/problem/1285/B> (Kadane's Algo pre-req)
5. <https://codeforces.com/problemset/problem/1201/B>
6. <https://codeforces.com/problemset/problem/274/A>
7. <https://codeforces.com/problemset/problem/413/C>
8. <https://codeforces.com/problemset/problem/1368/B>
9. <https://codeforces.com/problemset/problem/1291/B>

Extra ques -

<https://practice.geeksforgeeks.org/problems/maximize-arrii-of-an-array0026/1>
<https://www.geeksforgeeks.org/buy-maximum-stocks-stocks-can-bought-th-day/>
<https://practice.geeksforgeeks.org/problems/shop-in-candy-store/0>
<https://www.geeksforgeeks.org/survival/>
<https://www.geeksforgeeks.org/maximum-product-subset-array/>
<https://www.geeksforgeeks.org/maximum-product-subset-array/>
<https://practice.geeksforgeeks.org/problems/maximize-sum-after-k-negations1149/1>
<https://www.geeksforgeeks.org/maximum-sum-absolute-difference-array/>
<https://practice.geeksforgeeks.org/problems/swap-and-maximize/0>
<https://www.geeksforgeeks.org/minimum-sum-absolute-difference-pairs-two-arrays/#:~:text=It%20consists%20of%20two%20steps,result%20to%20the%20sum%20S.>
<https://www.geeksforgeeks.org/program-for-shortest-job-first-or-sjf-cpu-scheduling-set-1-non-preemptive/>
<https://www.geeksforgeeks.org/smallest-subset-sum-greater-elements/>
<https://practice.geeksforgeeks.org/problems/chocolate-distribution-problem/0>
<https://practice.geeksforgeeks.org/problems/smallest-number5829/1>

<https://www.geeksforgeeks.org/find-maximum-sum-possible-equal-sum-three-stacks/>
<https://practice.geeksforgeeks.org/problems/rearrange-characters/0>
<https://www.geeksforgeeks.org/find-maximum-meetings-in-one-room/>
<https://practice.geeksforgeeks.org/problems/huffman-encoding/0>
<https://practice.geeksforgeeks.org/problems/water-connection-problem/0>
<https://www.geeksforgeeks.org/maximum-trains-stoppage-can-provided/>
<https://practice.geeksforgeeks.org/problems/page-faults-in-lru/0>
<https://practice.geeksforgeeks.org/problems/minimum-cost-of-ropes-1587115620/1>
<https://www.geeksforgeeks.org/minimize-cash-flow-among-given-set-friends-borrowed-money/>
<https://www.geeksforgeeks.org/minimum-cost-cut-board-squares/>
<https://www.geeksforgeeks.org/k-centers-problem-set-1-greedy-approximate-algorithm/>
<https://www.spoj.com/problems/DEFKIN/>
<https://www.spoj.com/problems/DIEHARD/>
<https://www.spoj.com/problems/GERGOVIA/>
<https://www.spoj.com/problems/GCJ101BB/>
<https://www.spoj.com/problems/CHOCOLA/>
<https://www.spoj.com/problems/ARRANGE/>

Dynamic Programming

	<p> Fibonacci number Max Product Subarray Longest Increasing Subsequence Longest repeating subsequence Longest Common Subsequence (space optimised also) 0-1 Knapsack Edit Distance Longest palindromic substring Count palindromic substrings Maximum sum increasing subsequence Maximum sum path in matrix, (count paths, and similar type do, also backtrack to find the maximum path) Coin change problem Subset Sum Rod Cutting Egg Dropping </p>
--	--

	Word Break Matrix Chain Multiplication Palindrome Partitioning (MCM Variation) Catalan number
--	--

- <https://practice.geeksforgeeks.org/problems/cutted-segments1642/1>
- <https://practice.geeksforgeeks.org/problems/form-a-palindrome/0>
- <https://practice.geeksforgeeks.org/problems/painting-the-fence3727/1>
- <https://www.geeksforgeeks.org/assembly-line-scheduling-dp-34/>
- <https://www.geeksforgeeks.org/gold-mine-problem/>
- <https://practice.geeksforgeeks.org/problems/friends-pairing-problem5425/1>
- <https://www.geeksforgeeks.org/permutation-coefficient/>
- <https://practice.geeksforgeeks.org/problems/ncr1019/1>
- <https://practice.geeksforgeeks.org/problems/maximum-difference-of-zeros-and-ones-in-binary-string4111/1>
- <https://practice.geeksforgeeks.org/problems/minimum-number-of-jumps-1587115620/1>
- <https://practice.geeksforgeeks.org/problems/path-in-matrix3805/1>
- <https://practice.geeksforgeeks.org/problems/pairs-with-specific-difference/0>
- <https://practice.geeksforgeeks.org/problems/largest-square-formed-in-a-matrix0806/1>
- <https://practice.geeksforgeeks.org/problems/max-length-chain/1>
- <https://www.geeksforgeeks.org/maximum-subsequence-sum-such-that-no-three-are-consecutive/>
- <https://practice.geeksforgeeks.org/problems/longest-subsequence-such-that-difference-between-adjacents-is-one4724/1>
- <https://www.geeksforgeeks.org/count-subsequences-product-less-k/>
- <https://practice.geeksforgeeks.org/problems/longest-alternating-subsequence5951/1>
- <https://practice.geeksforgeeks.org/problems/count-palindromic-subsequences/1>
- <https://practice.geeksforgeeks.org/problems/subset-sum-problem2014/1>
- <https://www.geeksforgeeks.org/longest-palindromic-subsequence-dp-12/>
- <https://www.geeksforgeeks.org/largest-independent-set-problem-dp-26/>
- <https://www.geeksforgeeks.org/smallest-sum-contiguous-subarray/>
- <https://practice.geeksforgeeks.org/problems/kadanes-algorithm-1587115620/1>
- <https://practice.geeksforgeeks.org/problems/bbt-counter4914/1>
- <https://practice.geeksforgeeks.org/problems/reach-a-given-score-1587115621/1>
- <https://practice.geeksforgeeks.org/problems/longest-common-substring1452/1>
- <https://www.geeksforgeeks.org/minimum-removals-array-make-max-min-k/>
- <https://practice.geeksforgeeks.org/problems/minimum-cost-to-fill-given-weight-in-a-bag1956/1>
- <https://leetcode.com/problems/maximum-length-of-pair-chain/>

<https://practice.geeksforgeeks.org/problems/interleaved-strings/1>
<https://practice.geeksforgeeks.org/problems/maximum-profit4657/1>
<https://practice.geeksforgeeks.org/problems/maximum-sum-rectangle/0>
<https://www.geeksforgeeks.org/largest-area-rectangular-sub-matrix-equal-number-1s-0s/>
<https://www.geeksforgeeks.org/largest-rectangular-sub-matrix-whose-sum-0/>
<https://practice.geeksforgeeks.org/problems/boolean-parenthesization5610/1>
<https://practice.geeksforgeeks.org/problems/mobile-numeric-keypad5456/1>
<https://practice.geeksforgeeks.org/problems/word-wrap/0>
<https://practice.geeksforgeeks.org/problems/palindromic-partitioning4845/1>
<https://www.geeksforgeeks.org/optimal-binary-search-tree-dp-24/>
<https://practice.geeksforgeeks.org/problems/optimal-strategy-for-a-game-1587115620/1>
<https://www.geeksforgeeks.org/maximum-profit-by-buying-and-selling-a-share-at-most-twice/>
<https://www.geeksforgeeks.org/count-derangements-permutation-such-that-no-element-appears-in-its-original-position/>
<https://www.geeksforgeeks.org/coin-game-winner-every-player-three-choices/>
<https://www.geeksforgeeks.org/weighted-job-scheduling/>
<https://practice.geeksforgeeks.org/problems/stickler-theif/0>
<https://practice.geeksforgeeks.org/problems/word-wrap/0>
<https://www.geeksforgeeks.org/minimum-characters-added-front-make-string-palindrome/>
<https://www.geeksforgeeks.org/transform-one-string-to-another-using-minimum-number-of-give-n-operation/>

Trees and Graphs

Binary tree	Inorder, preorder, postorder Traversal (with recursion and without recursion) Left, bottom, top, right View Of Binary Tree Level order Traversal Level order traversal in spiral form Height of a Binary Tree Check if Binary tree is balanced or not Diameter of Binary Tree Diagonal traversal Boundary traversal Check if two trees are identical or not Maximum path sum Construct Binary Tree from inorder and preorder, Inorder and Postorder
-------------	--

Bst	<p>Symmetric Binary Tree</p> <p>LCA in Binary Tree</p> <p>Flatten Binary Tree to LinkedList</p> <p>Check if Binary Tree is mirror of itself or not</p> <p>Binary Tree to Double Linked List</p> <p>Find inorder successor and inorder predecessor</p> <p>Insertion, deletion, searching</p> <p>Find min and max value</p> <p>Find K-th smallest and K-th largest element in BST</p> <p>Check is a BT is BST or not</p> <p>Construct bst from preorder</p> <p>Convert binary tree to bst</p> <p>Convert normal bst to balanced bst</p> <p>Populate Next Right pointers of Tree</p> <p>Find LCA of two nodes in BST</p> <p>Find a pair with a given sum in BST</p> <p>BST iterator</p> <p>Size of the largest BST in a Binary Tree</p> <p>Serialize and deserialize Binary Tree</p> <p>Merge 2 bsts</p>
Graphs	<p>Create a graph</p> <p>DFS</p> <p>BFS</p> <p>Detect A cycle in Undirected Graph/Directed Graph using bfs/dfs</p> <p>Topo Sort</p> <p>Number of islands (Do in Grid and Graph both)</p> <p>Bipartite Check</p> <p>SCC(using KosaRaju's algo)</p> <p>Djisktra's Algorithm</p> <p>Bellman Ford Algo</p> <p>Floyd Warshall Algorithm</p> <p>MST using Prim's Algo</p> <p>MST using Kruskal's Algo</p>

	Word ladder Rotten Orange
--	------------------------------

Tree

<https://www.geeksforgeeks.org/construct-binary-tree-string-bracket-representation/>
<https://practice.geeksforgeeks.org/problems/transform-to-sum-tree/1>
<https://practice.geeksforgeeks.org/problems/sum-tree/1>
<https://practice.geeksforgeeks.org/problems/leaf-at-same-level/1>
<https://practice.geeksforgeeks.org/problems/check-if-tree-is-isomorphic/1>
<https://practice.geeksforgeeks.org/problems/duplicate-subtree-in-binary-tree/1>
<https://practice.geeksforgeeks.org/problems/check-mirror-in-n-ary-tree/0>
<https://practice.geeksforgeeks.org/problems/sum-of-the-longest-bloodline-of-a-tree/1>
<https://www.geeksforgeeks.org/check-given-graph-tree/#:~:text=Since%20the%20graph%20is%20undirected,graph%20is%20connected%2C%20otherwise%20not.>
<https://www.geeksforgeeks.org/find-largest-subtree-sum-tree/>
<https://practice.geeksforgeeks.org/problems/duplicate-subtrees/1>
<https://www.geeksforgeeks.org/kth-ancestor-node-binary-tree-set-2/>
<https://www.geeksforgeeks.org/print-k-sum-paths-binary-tree/>
<https://www.geeksforgeeks.org/maximum-sum-nodes-binary-tree-no-two-adjacent/>
<https://www.geeksforgeeks.org/minimum-swap-required-convert-binary-tree-binary-search-tree/#:~:text=Given%20the%20array%20representation%20of,it%20into%20Binary%20Search%20Tree.&text=Swap%201%3A%20Swap%20node%208,node%209%20with%20node%2010.>
<https://practice.geeksforgeeks.org/problems/populate-inorder-successor-for-all-nodes/1>
<https://practice.geeksforgeeks.org/problems/brothers-from-different-root/1>
<https://www.geeksforgeeks.org/find-median-bst-time-o1-space/>
<https://practice.geeksforgeeks.org/problems/count-bst-nodes-that-lie-in-a-given-range/1>
<https://www.geeksforgeeks.org/replace-every-element-with-the-least-greater-element-on-its-right/>
<https://www.geeksforgeeks.org/given-n-appointments-find-conflicting-appointments/>
<https://practice.geeksforgeeks.org/problems/preorder-to-postorder4423/1>
<https://practice.geeksforgeeks.org/problems/check-whether-bst-contains-dead-end/1>
<https://practice.geeksforgeeks.org/problems/largest-bst/1>
<https://www.geeksforgeeks.org/flatten-bst-to-sorted-list-increasing-order/>

Graphs -

<https://practice.geeksforgeeks.org/problems/rat-in-a-maze-problem/1>
<https://practice.geeksforgeeks.org/problems/steps-by-knight5927/1>
<https://leetcode.com/problems/clone-graph/>

<https://leetcode.com/problems/number-of-operations-to-make-network-connected/>
<https://www.geeksforgeeks.org/minimum-time-taken-by-each-job-to-be-completed-given-by-a-directed-acyclic-graph/>
<https://www.geeksforgeeks.org/find-whether-it-is-possible-to-finish-all-tasks-or-not-from-given-dependencies/>
<https://practice.geeksforgeeks.org/problems/alien-dictionary/1>
<https://www.geeksforgeeks.org/total-number-spanning-trees-graph/>
<https://www.geeksforgeeks.org/travelling-salesman-problem-set-1/>
<https://www.geeksforgeeks.org/graph-coloring-applications/#:~:text=Graph%20coloring%20problem%20is%20to,are%20colored%20using%20same%20color.>
<https://leetcode.com/problems/snakes-and-ladders/>
<https://www.geeksforgeeks.org/two-clique-problem-check-graph-can-divided-two-cliques/>
<https://www.geeksforgeeks.org/minimize-cash-flow-among-given-set-friends-borrowed-money/>
<https://www.geeksforgeeks.org/number-of-triangles-in-directed-and-undirected-graphs/>
<https://www.geeksforgeeks.org/chinese-postman-route-inspection-set-1-introduction/>
<https://www.geeksforgeeks.org/vertex-cover-problem-set-1-introduction-approximate-algorithm-2/>
<https://www.geeksforgeeks.org/paths-travel-nodes-using-edges-even-bridges-konigsberg/>
<https://www.geeksforgeeks.org/minimum-edges-reverse-make-path-source-destination/>
<https://practice.geeksforgeeks.org/problems/m-coloring-problem-1587115620/1>
<https://www.geeksforgeeks.org/find-if-there-is-a-path-of-more-than-k-length-from-a-source/>
<https://www.geeksforgeeks.org/water-jug-problem-using-bfs/>
<https://www.hackerearth.com/practice/algorithms/graphs/topological-sort/practice-problems/algorithms/oliver-and-the-game-3/>
<https://leetcode.com/problems/cheapest-flights-within-k-stops/description/>
<https://www.hackerrank.com/challenges/journey-to-the-moon/problem>
<https://www.geeksforgeeks.org/find-longest-path-directed-acyclic-graph/>
<https://www.geeksforgeeks.org/detect-negative-cycle-graph-bellman-ford/>
<https://www.geeksforgeeks.org/bridge-in-a-graph/>

Flood-fill Algorithm

<https://www.geeksforgeeks.org/check-if-all-levels-of-two-trees-are-anagrams-or-not/>
<https://practice.geeksforgeeks.org/problems/distance-of-nearest-cell-having-1-1587115620/1>

Misc

<https://www.geeksforgeeks.org/sum-minimum-maximum-elements-subarrays-size-k/>
<https://practice.geeksforgeeks.org/problems/game-with-string/0>
<https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream/0>

