

TỰ HỌC CẤU TRÚC DỮ LIỆU & THUẬT TOÁN - DSA CyberSoft

STT	Question Link	Link Tham khảo
	Stacks	
1	Next Greater Element on right	https://www.geeksforgeeks.org/next-greater-element/
2	Next Greater Element 2	https://leetcode.com/problems/next-greater-element-ii/
3	Daily Temperatures	https://leetcode.com/problems/daily-temperatures/
4	maximum difference between left and right smaller	https://www.geeksforgeeks.org/find-maximum-difference-between-nearest-left-and-right-smaller-elements/
5	Stock Span Problem	https://www.geeksforgeeks.org/the-stock-span-problem/
6	Largest Rectangular Area Histogram	https://leetcode.com/problems/largest-rectangle-in-histogram/
7	maximu size binary matrix containing 1	https://leetcode.com/problems/maximal-rectangle/
8	Valid Parentheses	https://leetcode.com/problems/valid-parentheses/
9	Length of longest valid substring	https://www.geeksforgeeks.org/length-of-the-longest-valid-substring/
10	Count of duplicate Parentheses	https://www.geeksforgeeks.org/find-expression-duplicate-parenthesis-not/
11	Decode String	https://leetcode.com/problems/decode-string/
12	Minimum Add To make Parentheses Valid	https://leetcode.com/problems/minimum-add-to-make-parentheses-valid/
13	Print Bracket Number	https://www.geeksforgeeks.org/print-bracket-number/
14	Asteroid Collision	https://leetcode.com/problems/asteroid-collision/
15	Backspace String Compare	https://leetcode.com/problems/backspace-string-compare/
16	Print Binary Number	https://www.geeksforgeeks.org/interesting-method-generate-binary-numbers-1-n/
17	Score Of String	https://leetcode.com/problems/score-of-parentheses/
18	Remove K digits From number	https://leetcode.com/problems/remove-k-digits/
19	Car fleet	https://leetcode.com/problems/car-fleet/
20	First negative Integer in k sized window	https://www.geeksforgeeks.org/first-negative-integer-every-window-size-k/
21	Addition	https://www.codechef.com/DEC19A/problems/BINADD
22	Gas Station	https://www.geeksforgeeks.org/maximum-sum-of-smallest-and-second-smallest-in-an-array/
23	Maximum sum of smallest and second smallest	https://www.geeksforgeeks.org/maximum-sum-of-smallest-and-second-smallest-in-an-array/
24	Min Stack	https://leetcode.com/problems/min-stack/
25	K stacks in a single array	https://www.geeksforgeeks.org/efficiently-implement-k-stacks-single-array/
26	Validate Stack	https://leetcode.com/problems/validate-stack-sequences/
27	K reverse in a queue	https://www.geeksforgeeks.org/reversing-first-k-elements-queue/
28	largest Pair sum in unsorted array	https://www.geeksforgeeks.org/find-the-largest-pair-sum-in-an-unsorted-array/
	Linked Lists	
1	reverse LinkedList	https://leetcode.com/problems/reverse-linked-list/
2	K reverse	https://www.geeksforgeeks.org/reverse-a-list-in-groups-of-given-size/

3	Floyd cycle	https://www.geeksforgeeks.org/detect-loop-in-a-linked-list/
4	Merge LinkedList	https://www.geeksforgeeks.org/merge-a-linked-list-into-another-linked-list-at-alternate-positions/
5	Clone a linkedlist	https://www.geeksforgeeks.org/a-linked-list-with-next-and-arbit-pointer/
6	find modular node	https://www.geeksforgeeks.org/find-modular-node-linked-list/
7	Remove duplicate from sorted	https://www.geeksforgeeks.org/remove-duplicates-from-a-sorted-linked-list/
8	Find the middle element	https://www.geeksforgeeks.org/write-a-c-function-to-print-the-middle-of-the-linked-list/
9	Nth element from end	https://www.geeksforgeeks.org/nth-node-from-the-end-of-a-linked-list/
10	LRU Cache	https://leetcode.com/problems/lru-cache/
	Binary Tree	
1	Inorder Traversal	https://leetcode.com/problems/binary-tree-inorder-traversal/
2	Preorder Traversal	https://leetcode.com/problems/binary-tree-preorder-traversal/
3	Postorder Traversal	https://leetcode.com/problems/binary-tree-postorder-traversal/
4	Print ancestor of given tree	https://www.geeksforgeeks.org/print-ancestors-of-a-given-node-in-binary-tree/
5	Binary Tree Level Order	https://leetcode.com/problems/binary-tree-level-order-traversal/
6	Average of levels	https://leetcode.com/problems/average-of-levels-in-binary-tree/
7	All Nodes at distance K	https://leetcode.com/problems/all-nodes-distance-k-in-binary-tree/
8	Count bst in a given range	https://www.geeksforgeeks.org/count-bst-nodes-that-are-in-a-given-range/
9	Binary search tree to greater sum	https://leetcode.com/problems/binary-search-tree-to-greater-sum-tree/
10	Binary Tree Cameras	https://leetcode.com/problems/binary-tree-cameras/
11	Binary Tree Maximum Path Sum	https://leetcode.com/problems/binary-tree-maximum-path-sum/
12	Binary Tree to BST	https://practice.geeksforgeeks.org/problems/binary-tree-to-bst/1
13	right side view	https://leetcode.com/problems/binary-tree-right-side-view/
14	Left View	https://practice.geeksforgeeks.org/problems/left-view-of-binary-tree/1
15	Vertical order	https://leetcode.com/problems/vertical-order-traversal-of-a-binary-tree/
16	Top View	https://www.geeksforgeeks.org/print-nodes-in-the-top-view-of-binary-tree-set-3/
17	Bottom View	https://practice.geeksforgeeks.org/problems/bottom-view-of-binary-tree/1
18	Diagonal Traversal	https://www.geeksforgeeks.org/diagonal-traversal-of-binary-tree/
19	leftmost and rightmost node	https://practice.geeksforgeeks.org/problems/leftmost-and-rightmost-nodes-of-binary-tree/1
20	kth smallest element	https://leetcode.com/problems/kth-smallest-element-in-a-bst/
21	Binary Tree Tilt	https://leetcode.com/problems/binary-tree-tilt/
22	Print all nodes that dont have siblings	https://www.geeksforgeeks.org/print-nodes-dont-sibling-binary-tree/
23	House robber 3	https://leetcode.com/problems/house-robber-iii/
24	Boundary Traversal	https://leetcode.com/problems/boundary-of-binary-tree/
	Binary search tree	
1	Lowest common ancestor in BST	https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree/
2	Lowest common ancestor	https://practice.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-binary-tree/1
3	square root decomposition	https://www.spoj.com/problems/RMQSQ/

4	Delete Node in BST	https://leetcode.com/problems/delete-node-in-a-bst/
5	Construct from inorder and preorder	https://leetcode.com/problems/construct-binary-tree-from-preorder-and-inorder-traversal/
6	Construct from inorder and postorder	https://leetcode.com/problems/construct-binary-tree-from-inorder-and-postorder-traversal/
7	construct bst using postorder	https://www.geeksforgeeks.org/construct-a-binary-search-tree-from-given-postorder/
8	Inorder and level order	https://www.geeksforgeeks.org/construct-tree-inorder-level-order-traversals/
9	serialize and deserialise	https://leetcode.com/problems/serialize-and-deserialize-binary-tree/
10	Distribute coins in a binary tree	https://leetcode.com/problems/distribute-coins-in-binary-tree/
11	duplicate subtree in a binary tree	https://leetcode.com/problems/find-duplicate-subtrees/
	Mixed from tree (General tree, AVL,BST)	
1	AVL tree	https://www.geeksforgeeks.org/avl-tree-set-1-insertion/
2	image multiplication	https://practice.geeksforgeeks.org/problems/image-multiplication/0
3	Binary TREE longest consecutive sequence	https://leetcode.com/problems/binary-tree-longest-consecutive-sequence/
4	diameter of a tree	https://www.geeksforgeeks.org/diameter-tree-using-dfs/
5	Kth smallest element of BST	https://www.geeksforgeeks.org/kth-smallest-element-in-bst-using-o1-extra-space/
6	clone a binary tree with random pointer	https://www.geeksforgeeks.org/clone-binary-tree-random-pointers/
7	Flatten binary tree to linked list	https://leetcode.com/problems/flatten-binary-tree-to-linked-list/
8	Convert a binary tree to circular doubly linked list	https://www.geeksforgeeks.org/convert-a-binary-tree-to-a-circular-doubly-link-list/
9	Conversion of sorted DLL to BST	https://www.geeksforgeeks.org/in-place-conversion-of-sorted-dll-to-balanced-bst/
10	Merge Two BST	https://www.geeksforgeeks.org/merge-two-balanced-binary-search-trees/
11	Pair violating BST property	https://www.geeksforgeeks.org/count-of-pairs-violating-bst-property/
12	Flip binary tree to match preorder	https://leetcode.com/problems/flip-binary-tree-to-match-preorder-traversal/
13	inorder succesor	https://leetcode.com/problems/inorder-successor-in-bst/
14	Rabbits in forest	https://leetcode.com/problems/rabbits-in-forest/
	Arrays & strings (STL)	
1	Array of doubled Pair	https://leetcode.com/problems/array-of-doubled-pairs/
2	Find smallest size of string containing all char of other	https://www.geeksforgeeks.org/find-the-smallest-window-in-a-string-containing-all-characters-of-another-string/
3	Longest consecutive 1's	https://www.geeksforgeeks.org/maximum-consecutive-ones-or-zeros-in-a-binary-array/
4	number of subarrays sum exactly k	https://leetcode.com/problems/subarray-sum-equals-k/
5	Subarray sum Divisible by k	https://www.geeksforgeeks.org/count-sub-arrays-sum-divisible-k/
6	longest substring with unique character	https://www.geeksforgeeks.org/length-of-the-longest-substring-without-repeating-characters/
7	subarray with equal number of 0 and 1	https://www.geeksforgeeks.org/count-subarrays-equal-number-1s-0s/
8	Substring with equal 0 1 and 2	https://www.geeksforgeeks.org/substring-equal-number-0-1-2/
9	same frequency after one removal	https://www.geeksforgeeks.org/check-if-frequency-of-all-characters-can-become-same-by-one-removal/
10	K closest point from origin	https://leetcode.com/problems/k-closest-points-to-origin/
11	Anagram Pallindrome	https://www.geeksforgeeks.org/check-anagram-string-palindrome-not/
12	Minimum number of refueling spots	https://leetcode.com/problems/minimum-number-of-refueling-stops/
13	Find all anagrams in a string	https://leetcode.com/problems/find-all-anagrams-in-a-string/
14	K anagram	https://www.geeksforgeeks.org/check-two-strings-k-anagrams-not/

15	smallest number whose digit mult to given no.	https://www.geeksforgeeks.org/find-smallest-number-whose-digits-multiply-given-number-n/
16	Group anagram	https://leetcode.com/problems/group-anagrams/
17	Huffman coding	https://www.geeksforgeeks.org/huffman-coding-greedy-algo-3/
18	Isomorphic string	https://www.geeksforgeeks.org/huffman-coding-greedy-algo-3/
19	Check AP sequence	https://www.geeksforgeeks.org/check-whether-arithmetic-progression-can-formed-given-array/
20	Count Pair whose sum is divisible by k	https://www.geeksforgeeks.org/count-pairs-in-array-whose-sum-is-divisible-by-k/
21	smallest subarray with all the occurrence of MFE	https://www.geeksforgeeks.org/smallest-subarray-with-all-occurrences-of-a-most-frequent-element/
22	Morning Assembly	https://practice.geeksforgeeks.org/problems/morning-assembly/0
23	Kth smallest element in sorted 2d matrix	https://leetcode.com/problems/kth-smallest-element-in-a-sorted-matrix/
24	Kth smallest prime fraction	https://leetcode.com/problems/k-th-smallest-prime-fraction/
25	Max points on a line	https://leetcode.com/problems/max-points-on-a-line/
26	Brick wall	https://leetcode.com/problems/brick-wall/
27	Array Pair sum divisibility	https://practice.geeksforgeeks.org/problems/array-pair-sum-divisibility-problem/0
28	A simple fraction	https://practice.geeksforgeeks.org/problems/a-simple-fraction/0
29	Grid illumination	https://leetcode.com/problems/grid-illumination/
30	Insert Delete GetRandom O(1)	https://leetcode.com/problems/insert-delete-getrandom-o1/
31	Count of substring with k 1	https://www.geeksforgeeks.org/count-substrings-binary-string-containing-k-ones/
32	Incomplete array	https://practice.geeksforgeeks.org/problems/incomplete-array/0
33	Long Pressed Name	https://leetcode.com/problems/long-pressed-name
34	Range Addition	https://leetcode.com/problems/range-addition
35	Max range query	https://www.codechef.com/COOK103B/problems/MAXREMOV
36	Magic Squares In Grid	https://leetcode.com/problems/magic-squares-in-grid
37	Next Greater Element III	https://leetcode.com/problems/next-greater-element-iii
38	Orderly Queue	https://leetcode.com/problems/orderly-queue
39	maximum subarray	https://leetcode.com/problems/maximum-subarray/
40	K-CON	https://www.codechef.com/JAN18/problems/KCON
41	Rotate Array	https://leetcode.com/problems/rotate-array
42	Remove Duplicates from Sorted Array	https://leetcode.com/problems/remove-duplicates-from-sorted-array
43	X of akind in a deck	https://leetcode.com/problems/x-of-a-kind-in-a-deck-of-cards/
44	merge k sorted array	https://practice.geeksforgeeks.org/problems/merge-k-sorted-arrays/1
45	Grid illumination	https://leetcode.com/problems/grid-illumination/
46	Kth smallest after removing natural numbers	https://www.geeksforgeeks.org/k-th-smallest-element-removing-integers-natural-numbers/
47	rearrange character string such that no two are same	https://www.geeksforgeeks.org/rearrange-characters-string-no-two-adjacent/
48	Longest consecutive sequence	https://leetcode.com/problems/longest-consecutive-sequence/
49	length of largest subarray with continuous element	https://www.geeksforgeeks.org/length-largest-subarray-contiguous-elements-set-2/
50	length of largest subarray with cont element 2	https://www.geeksforgeeks.org/length-largest-subarray-contiguous-elements-set-2/
51	Anagram mapping	https://leetcode.com/problems/find-anagram-mappings/

52	Employee Free time	https://leetcode.com/problems/employee-free-time/
53	Line reflection	https://leetcode.com/problems/line-reflection/
	Heap	
1	Binary heap	https://www.geeksforgeeks.org/binary-heap/
2	Build heap from array	https://www.geeksforgeeks.org/building-heap-from-array/
3	Island perimeter	https://leetcode.com/problems/island-perimeter/
4	skyline problem	https://leetcode.com/problems/the-skyline-problem/
5	Pairs of coinciding points	https://practice.geeksforgeeks.org/problems/pairs-of-non-coinciding-points/0
6	trapping rain water	https://leetcode.com/problems/trapping-rain-water/
7	Trapping Rain Water II	https://leetcode.com/problems/trapping-rain-water-ii
8	Sort a nearly sorted array	https://www.geeksforgeeks.org/nearly-sorted-algorithm/
9	bulb switcher	https://leetcode.com/problems/bulb-switcher/
10	max frequency stack	https://leetcode.com/problems/maximum-frequency-stack/
11	Sliding window maximum	https://leetcode.com/problems/sliding-window-maximum/
12	Swim in rising water	https://leetcode.com/problems/swim-in-rising-water/
13	Heap sort	https://www.geeksforgeeks.org/heap-sort/
14	Product of Array Except Self	https://leetcode.com/problems/product-of-array-except-self
15	K empty slots	https://leetcode.com/problems/k-empty-slots/
16		
17	mathematics	
18		
19	Sieve of Eratosthenes	https://www.geeksforgeeks.org/sieve-of-eratosthenes/
20	Segmented sieve	https://www.spoj.com/problems/PRIME1/cstart=10
21	Squares of a Sorted Array	https://leetcode.com/problems/squares-of-a-sorted-array
22	Fast Exponentiation	
23	Fibonacci Number	https://leetcode.com/problems/fibonacci-number
24	Container With Most Water	https://leetcode.com/problems/container-with-most-water
	Searching & Sorting	
1	Segregate 0 and 1	https://www.geeksforgeeks.org/segregate-0s-and-1s-in-an-array-by-traversing-array-once/
2	Segregate 0-1-2	https://www.geeksforgeeks.org/sort-an-array-of-0s-1s-and-2s/
3	Sort Array By Parity	https://leetcode.com/problems/sort-array-by-parity
4	Min Jump required with +i or -i allowed	https://www.geeksforgeeks.org/find-the-number-of-jumps-to-reach-x-in-the-number-line-from-zero/
5	Max chunks to make sorted	https://leetcode.com/problems/max-chunks-to-make-sorted/
6	Max Chunks To Make Sorted II	https://leetcode.com/problems/max-chunks-to-make-sorted-ii
7	Two Sum	https://www.geeksforgeeks.org/given-an-array-a-and-a-number-x-check-for-pair-in-a-with-sum-as-x/

8	Two Difference	https://www.geeksforgeeks.org/find-a-pair-with-the-given-difference/
9	LPS	https://www.geeksforgeeks.org/longest-prefix-also-suffix/
10	Shortest Palindrome	https://leetcode.com/problems/shortest-palindrome
11	Boats to Save People	https://leetcode.com/problems/boats-to-save-people
12	Min No. of Platform	https://www.geeksforgeeks.org/minimum-number-platforms-required-railwaybus-station/
13	Maximum Swap	https://www.geeksforgeeks.org/minimum-number-platforms-required-railwaybus-station/
14	Optimal Division	https://leetcode.com/problems/optimal-division
15	Max Consecutive Ones II	https://leetcode.com/problems/max-consecutive-ones-ii
16	max consecutive ones 3	https://leetcode.com/problems/max-consecutive-ones-iii/
17	majority element	https://leetcode.com/problems/majority-element/
18	majority element 2	https://leetcode.com/problems/majority-element-ii/
19	majority element general	http://geeksforgeeks.org/given-an-array-of-of-size-n-finds-all-the-elements-that-appear-more-than-nk-times/
20	Reverse vowels of a string	http://geeksforgeeks.org/given-an-array-of-of-size-n-finds-all-the-elements-that-appear-more-than-nk-times/
21	First missing positive	https://leetcode.com/problems/first-missing-positive/
22	push dominoes	https://leetcode.com/problems/push-dominoes/
23	moving stones until consecutive 2	https://leetcode.com/problems/moving-stones-until-consecutive-ii/
24	max product of 3 numbers	https://leetcode.com/problems/maximum-product-of-three-numbers/
25	largest number atleast twice of others	https://leetcode.com/problems/largest-number-at-least-twice-of-others/
26	maximum product subarray	https://leetcode.com/problems/maximum-product-subarray/
27	rotate image	https://leetcode.com/problems/rotate-image/
28	number of subarrays with bounded maximum	https://leetcode.com/problems/number-of-subarrays-with-bounded-maximum/
29	partition labels	https://leetcode.com/problems/partition-labels/
30	global and local inversions	https://leetcode.com/problems/partition-labels/
31	partition array into disjoint intervals	https://leetcode.com/problems/partition-array-into-disjoint-intervals/
32	valid pallindrome 2	https://leetcode.com/problems/valid-palindrome-ii/
33	consecutive number sum	https://leetcode.com/problems/consecutive-numbers-sum/
34	minimum domino rotation for equal row	https://leetcode.com/problems/minimum-domino-rotations-for-equal-row/
35	multiply strings	https://leetcode.com/problems/multiply-strings/
36	smallest range from k lists	https://leetcode.com/problems/smallest-range-covering-elements-from-k-lists/
37	pascal triangle 2	https://leetcode.com/problems/pascals-triangle-ii/
38	max sum of two non overlapping subarrays	https://leetcode.com/problems/maximum-sum-of-two-non-overlapping-subarrays/
39	maximize distance to closest person	https://leetcode.com/problems/maximize-distance-to-closest-person/
40	Subarrays with k different integers	https://leetcode.com/problems/subarrays-with-k-different-integers/
41	Icing on cake	https://www.codechef.com/problems/IOC
42	search in rotated sorted array	https://leetcode.com/problems/search-in-rotated-sorted-array/
43	split array largest sum	https://leetcode.com/problems/split-array-largest-sum/
44	counting sort	https://www.geeksforgeeks.org/counting-sort/
45	capacity to ship within D days	https://leetcode.com/problems/capacity-to-ship-packages-within-d-days/
46	insertion sort	https://www.geeksforgeeks.org/insertion-sort/

47	koko eating bananas	https://leetcode.com/problems/koko-eating-bananas/
48	median of two sorted array	https://leetcode.com/problems/median-of-two-sorted-arrays/
49	merge sort	https://www.geeksforgeeks.org/merge-sort/
50	smallest divisor given a threshold	https://leetcode.com/problems/find-the-smallest-divisor-given-a-threshold/
51	wiggle sort	https://leetcode.com/problems/wiggle-sort/
52	best meeting points	https://leetcode.com/problems/best-meeting-point/
	Graph	
1	BFS of graph	https://practice.geeksforgeeks.org/problems/bfs-traversal-of-graph/1
2	Bipartite graph	https://leetcode.com/problems/is-graph-bipartite/
3	DFS	https://practice.geeksforgeeks.org/problems/depth-first-traversal-for-a-graph/1
4	detect cycle in undirected graph	https://www.geeksforgeeks.org/detect-cycle-undirected-graph/
5	Prim's Algo	https://www.spoj.com/problems/MST/
6	Dijkstra algo	https://www.geeksforgeeks.org/dijkstras-shortest-path-algorithm-greedy-algo-7/
7	chef and reversing	https://www.codechef.com/problems/REVERSE
8	Bus routes	https://leetcode.com/problems/bus-routes/
9	evaluate division	https://leetcode.com/problems/evaluate-division/
10	topological sorting	https://www.geeksforgeeks.org/topological-sorting/
11	Kahn's algo	https://www.geeksforgeeks.org/topological-sorting-indegree-based-solution/
12	course schedule 2	https://leetcode.com/problems/course-schedule-ii/
13	Strongly Connected Components (Kosaraju's Algo)	https://practice.geeksforgeeks.org/problems/strongly-connected-components-kosarajus-algo/1
14	Mother Vertex	https://practice.geeksforgeeks.org/problems/mother-vertex/1
15	Rotting Oranges	https://leetcode.com/problems/rotting-oranges
16	bellman ford	https://www.geeksforgeeks.org/bellman-ford-algorithm-dp-23/
17	Number of Islands	https://leetcode.com/problems/number-of-islands
18	DSU	
19	Number of Enclaves	https://leetcode.com/problems/number-of-enclaves
20	Most Stones Removed with Same Row or Column	https://leetcode.com/problems/most-stones-removed-with-same-row-or-column
21	Regions Cut By Slashes	https://leetcode.com/problems/regions-cut-by-slashes
22	Kruskal's algo	https://www.geeksforgeeks.org/kruskals-minimum-spanning-tree-algorithm-greedy-algo-2/
23	Articulation point	https://www.geeksforgeeks.org/articulation-points-or-cut-vertices-in-a-graph/
24	Doctor Strange	https://practice.geeksforgeeks.org/problems/doctor-strange/0
25	Satisfiability of Equality Equations	https://leetcode.com/problems/satisfiability-of-equality-equations
26	0-1 matrix	https://leetcode.com/problems/01-matrix/
27	Word Ladder	https://leetcode.com/problems/word-ladder
28	Job Sequencing	https://www.geeksforgeeks.org/job-sequencing-problem/
29	Eulerian Path in an Undirected Graph	https://practice.geeksforgeeks.org/problems/eulerian-path-in-an-undirected-graph/0
30	Euler Circuit in a Directed Graph	https://practice.geeksforgeeks.org/problems/euler-circuit-in-a-directed-graph/1

31	Castle RUN	https://practice.geeksforgeeks.org/problems/castle-run/0
32	Sentence Similarity II	https://leetcode.com/problems/sentence-similarity-ii
33	Number of Distinct Islands	https://leetcode.com/problems/number-of-distinct-islands
34	Number of Islands II	https://leetcode.com/problems/number-of-islands-ii
35	Parallel courses	https://leetcode.com/problems/parallel-courses/
36	optimize water distribution in village	https://leetcode.com/problems/optimize-water-distribution-in-a-village/
37	connecting cities with minimum cost	https://leetcode.com/problems/connecting-cities-with-minimum-cost/
	Dynamic programming	
1	Minimize Malware Spread	https://leetcode.com/problems/climbing-stairs/
2	climbing stairs	https://leetcode.com/problems/climbing-stairs/
3	Jump game 2	https://leetcode.com/problems/jump-game-ii/
4	Min cost path	https://leetcode.com/problems/minimum-path-sum/
5	max size subsquare with all 1	https://www.geeksforgeeks.org/maximum-size-sub-matrix-with-all-1s-in-a-binary-matrix/
6	0-1 Knapsack	https://www.geeksforgeeks.org/0-1-knapsack-problem-dp-10/
7	fractional knapsack	https://www.geeksforgeeks.org/fractional-knapsack-problem/
8	longest increasing subsequence	https://leetcode.com/problems/longest-increasing-subsequence/
9	longest increasing subsequence	https://leetcode.com/problems/longest-increasing-subsequence/
10	minimum number of increasing subsequence	https://www.geeksforgeeks.org/minimum-number-of-increasing-subsequences/
11	building bridges	https://www.geeksforgeeks.org/dynamic-programming-building-bridges/
12	Box stacking	https://www.geeksforgeeks.org/box-stacking-problem-dp-22/
13	max sum alternating subsequence	https://www.geeksforgeeks.org/maximum-sum-alternating-subsequence-sum/
14	best time to buy and sell stock	https://leetcode.com/problems/best-time-to-buy-and-sell-stock/
15	best time to buy and sell 2	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-ii/
16	best time to buy and sell 3	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii/
17	best time to buy and sell 4	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iv/
18	best time to buy and sell with cool down	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-cooldown/
19	buy and sell with transaction time	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-transaction-fee/
20	Ugly number	https://www.geeksforgeeks.org/ugly-numbers/
21	Super ugly number	https://www.geeksforgeeks.org/super-ugly-number-number-whose-prime-factors-given-set/
22	Domino and tromino tiling	https://leetcode.com/problems/domino-and-tromino-tiling/
23	Wildcard pattern matching	https://www.geeksforgeeks.org/wildcard-pattern-matching/
24	Regular expression matching	https://leetcode.com/problems/regular-expression-matching/
25	Count all pallindromic subsequences	https://www.geeksforgeeks.org/count-palindromic-subsequence-given-string/
26	Regular expression matching	https://leetcode.com/problems/regular-expression-matching/
27	Count all pallindromic subsequence	https://www.geeksforgeeks.org/count-palindromic-subsequence-given-string/
28	Count distinct pallindromic subsequence	https://leetcode.com/problems/count-different-palindromic-subsequences/

29	Count of binary string without consecutive 1	https://www.geeksforgeeks.org/count-number-binary-strings-without-consecutive-1s/
30	Max sum with no 2 adjacent element	https://www.geeksforgeeks.org/maximum-sum-such-that-no-two-elements-are-adjacent/
31	Pizza with 3n slices	https://leetcode.com/problems/pizza-with-3n-slices/
32	LCS triplet	https://www.geeksforgeeks.org/lcs-longest-common-subsequence-three-strings/
34	Edit distance	https://www.geeksforgeeks.org/edit-distance-dp-5/
35	Frog jump	https://leetcode.com/problems/frog-jump/
36	Friends pairing problem	https://www.geeksforgeeks.org/friends-pairing-problem/
37	Partition of sets into k subsets	https://www.geeksforgeeks.org/count-number-of-ways-to-partition-a-set-into-k-subsets/
38	Can i win	https://www.geeksforgeeks.org/optimal-strategy-for-a-game-dp-31/
39	Knight probability	https://www.geeksforgeeks.org/probability-knight-remain-chessboard/
40	Temple offering	https://www.geeksforgeeks.org/temple-offerings/
41	Highway billboard problem	https://www.geeksforgeeks.org/highway-billboard-problem/
42	No. of sequence of type $a^i+b^j+c^k$	https://www.geeksforgeeks.org/number-subsequences-form-ai-bj-ck/
43	boolean parenthesization	https://www.geeksforgeeks.org/boolean-parenthesization-problem-dp-37/
44	Min and max with + and *	https://www.geeksforgeeks.org/minimum-maximum-values-expression/
45	Optimal BST	https://www.geeksforgeeks.org/optimal-binary-search-tree-dp-24/
46	Find water in glass	https://www.geeksforgeeks.org/find-water-in-a-glass/
47	cherry pickup	https://leetcode.com/problems/cherry-pickup/
48	arithmetic slices	https://leetcode.com/problems/arithmetical-slices/
49	arithmetic slices 2	https://leetcode.com/problems/arithmetical-slices-ii-subsequence/
50	Largest sum subarray atleast k numbers	https://www.geeksforgeeks.org/largest-sum-subarray-least-k-numbers/
51	Maximum sum of 3 non overlapping subarrays	https://leetcode.com/problems/maximum-sum-of-3-non-overlapping-subarrays/
52	Remove min element according to constraint	https://www.geeksforgeeks.org/remove-minimum-elements-either-side-2min-max/
53	Scramble string	https://leetcode.com/problems/scramble-string/
54	Minimum score triangulation	https://leetcode.com/problems/minimum-score-triangulation-of-polygon/
55	2 keys keyboard	https://leetcode.com/problems/2-keys-keyboard/
56	4 keys keyboard	https://leetcode.com/articles/4-keys-keyboard/
57	Mobile numeric keypad	https://www.geeksforgeeks.org/mobile-numeric-keypad-problem/
58	Word break	https://leetcode.com/problems/word-break/
59	burst balloons	https://leetcode.com/problems/burst-balloons/
60	Encode string with shortest length	https://evelynn.gitbooks.io/google-interview/encode-string-with-shortest-length.html
61	longest repeating subsequence	https://www.geeksforgeeks.org/longest-repeating-subsequence/
62	String is k pallindromic or not	https://www.geeksforgeeks.org/find-if-string-is-k-palindrome-or-not/
63	Count distinct subsequence	https://www.geeksforgeeks.org/count-distinct-subsequences/
64	Shortest uncommon subsequence	https://www.geeksforgeeks.org/shortest-uncommon-subsequence/
65	minimal moves to form a string	https://www.geeksforgeeks.org/minimal-moves-form-string-adding-characters-appending-string/
66	Paint fence	https://leetcode.com/problems/paint-fence/
67	Paint house	https://leetcode.com/problems/paint-house/
68	Paint house 2	https://leetcode.com/problems/paint-house-ii/
	BFS/DFS	

	Sliding Puzzle	https://leetcode.com/problems/sliding-puzzle
1	Find the Maximum Flow	https://practice.geeksforgeeks.org/problems/find-the-maximum-flow/0
2	Maximum Bipartite Matching	https://practice.geeksforgeeks.org/problems/maximum-bipartite-matching/1
3	Reconstruct Itinerary	https://leetcode.com/problems/reconstruct-itinerary
4	Redundant Connection	https://leetcode.com/problems/redundant-connection
5	Redundant connection 2	https://leetcode.com/problems/redundant-connection-ii/
6	Possible Bipartition	https://leetcode.com/problems/possible-bipartition
7	Floyd Warshall	https://leetcode.com/problems/possible-bipartition
8	Johnson's algorithm	
9	Journey to the moon	https://www.hackerrank.com/challenges/journey-to-the-moon/problem
10	Sort item by group accord to dependencies	https://leetcode.com/problems/sort-items-by-groups-respecting-dependencies/
11	As far from land as possible	https://leetcode.com/problems/as-far-from-land-as-possible/
11	K-Similar Strings	https://leetcode.com/problems/k-similar-strings
12	Similar String Groups	https://leetcode.com/problems/similar-string-groups
13	Coloring A Border	https://leetcode.com/problems/coloring-a-border
14	Shortest bridge	https://leetcode.com/problems/shortest-bridge/
15	Min swaps required to sort array	https://www.geeksforgeeks.org/minimum-number-swaps-required-sort-array/
16	Walls and gates	https://leetcode.com/problems/walls-and-gates/
17	The maze 2	https://leetcode.com/problems/the-maze-ii/
	Text processing	
1	KMP	https://www.spoj.com/problems/NAJPF/
2	Find string roots	https://www.spoj.com/problems/FINDSR/
3	Z algo	https://www.geeksforgeeks.org/z-algorithm-linear-time-pattern-searching-algorithm/
4	chef and secret password	https://www.codechef.com/COOK103B/problems/SECPASS
5	Manacher's algo	https://www.geeksforgeeks.org/manachers-algorithm-linear-time-longest-palindromic-substring-part-1/
	Number theory	
1	Euclidean algorithm	https://www.codechef.com/problems/FLOW016
2	Extended Euclidean algorithm	https://onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&page=show_problem&problem=1045
3	Linear diophantine equation	https://www.spoj.com/problems/CEQU/
4	Euler's totient function	https://www.spoj.com/problems/ETF/
5	Divisors upto n	
6	Fermat's little theorem	https://www.geeksforgeeks.org/fermats-little-theorem/
7	No min No max	https://www.codechef.com/JULY18A/problems/NMNMX
8	Boring factorials	https://www.spoj.com/problems/DCEPC11B/
9	FFT	https://www.spoj.com/problems/POLYMUL/
	Geometry	
1	Erect the fence	https://leetcode.com/problems/erect-the-fence/
	Game Theory	

1	5 Pirates and 100 coins	https://www.geeksforgeeks.org/puzzle-20-5-pirates-and-100-gold-coins/	
2	Nim game	https://www.geeksforgeeks.org/combinatorial-game-theory-set-2-game-nim/	
3	Buddy nim	https://www.codechef.com/SNCKPE19/problems/BUDDYNIM	
	<p style="text-align: center;">CyberSoft có chương trình luyện Tư duy, thuật toán, ôn luyện thi chứng chỉ CS50 Harvard & Phỏng vấn thuật toán từ cơ bản đến cao cấp - HỌC PHÍ RẤT ƯU ĐÃI</p>		
1	XÂY GÓC LẬP TRÌNH: KHỞI ĐẦU LỘ TRÌNH MASTER CODING - TIÊU CHUẨN HARVARD (COMPUTER SCIENCE 1)		
2	LẬP TRÌNH HƯỚNG ĐỐI TƯỢNG & THUẬT TOÁN (COMPUTER SCIENCE 2)		
3	CẤU TRÚC DỮ LIỆU & THUẬT TOÁN PHỔ BIẾN - PASS PHỎNG VẤN -NĂNG LEVEL (COMPUTER SCIENCE 3 - PREMIUM)		
4	CẤU TRÚC DỮ LIỆU & THUẬT TOÁN CAO CẤP (COMPUTER SCIENCE 03 -LUXURY)		