**Arrays:**

**Easy**

1. [Build Array from Permutation](https://leetcode.com/problems/build-array-from-permutation/)
2. [Concatenation of Array](https://leetcode.com/problems/concatenation-of-array/)
3. [Running Sum of 1d Array](https://leetcode.com/problems/running-sum-of-1d-array/)
4. [Richest Customer Wealth](https://leetcode.com/problems/richest-customer-wealth/)
5. [Shuffle the Array](https://leetcode.com/problems/shuffle-the-array/)
6. [Kids With the Greatest Number of Candies](https://leetcode.com/problems/kids-with-the-greatest-number-of-candies/)
7. [Number of Good Pairs](https://leetcode.com/problems/number-of-good-pairs/)
8. [How Many Numbers Are Smaller Than the Current Number](https://leetcode.com/problems/how-many-numbers-are-smaller-than-the-current-number/)
9. [Create Target Array in the Given Order](https://leetcode.com/problems/create-target-array-in-the-given-order/)
10. [Check if the Sentence Is Pangram](https://leetcode.com/problems/check-if-the-sentence-is-pangram/)
11. [Count Items Matching a Rule](https://leetcode.com/problems/count-items-matching-a-rule/)
12. [Find the Highest Altitude](https://leetcode.com/problems/find-the-highest-altitude/)
13. [Flipping an Image](https://leetcode.com/problems/flipping-an-image/)
14. [Cells with Odd Values in a Matrix](https://leetcode.com/problems/cells-with-odd-values-in-a-matrix/)
15. [Matrix Diagonal Sum](https://leetcode.com/problems/matrix-diagonal-sum/)
16. [Find Numbers with Even Number of Digits](https://leetcode.com/problems/find-numbers-with-even-number-of-digits/)
17. [Transpose Matrix](https://leetcode.com/problems/transpose-matrix/)
18. [Add to Array-Form of Integer](https://leetcode.com/problems/add-to-array-form-of-integer/)
19. [Maximum Population Year](https://leetcode.com/problems/maximum-population-year/)
20. [Determine Whether Matrix Can Be Obtained By Rotation](https://leetcode.com/problems/determine-whether-matrix-can-be-obtained-by-rotation/)
21. [Two Sum](https://leetcode.com/problems/two-sum/)
22. [Find N Unique Integers Sum up to Zero](https://leetcode.com/problems/find-n-unique-integers-sum-up-to-zero/)
23. [Lucky Number In a Matrix](https://leetcode.com/problems/lucky-numbers-in-a-matrix/)
24. [Maximum Subarray](https://leetcode.com/problems/maximum-subarray/)
25. [Reshape the Matrix](https://leetcode.com/problems/reshape-the-matrix/)
26. [Plus One](https://leetcode.com/problems/plus-one/)
27. [Remove Duplicates from Sorted Array](https://leetcode.com/problems/remove-duplicates-from-sorted-array/)
28. [Minimum Cost to Move Chips to The Same Position](https://leetcode.com/problems/minimum-cost-to-move-chips-to-the-same-position/)

**Medium**

1. [Spiral Matrix](https://leetcode.com/problems/spiral-matrix/)
2. [Spiral Matrix II](https://leetcode.com/problems/spiral-matrix-ii/)
3. [Spiral Matrix III](https://leetcode.com/problems/spiral-matrix-iii/)
4. [Set Matrix Zeroes](https://leetcode.com/problems/set-matrix-zeroes/)
5. [Product of Array Except Self](https://leetcode.com/problems/product-of-array-except-self/)
6. [Find First and Last Position of Element in Sorted Array](https://leetcode.com/problems/find-first-and-last-position-of-element-in-sorted-array/)
7. [Jump Game](https://leetcode.com/problems/jump-game/)
8. [Rotate Array](https://leetcode.com/problems/rotate-array/)
9. [Sort Colors](https://leetcode.com/problems/sort-colors/)
10. [House Robber](https://leetcode.com/problems/house-robber/)

**Hard**

1. [Max Value of Equation](https://leetcode.com/problems/max-value-of-equation/)
2. [First Missing Positive](https://leetcode.com/problems/first-missing-positive/)
3. [Good Array](https://leetcode.com/problems/check-if-it-is-a-good-array/)

**Searching:**

**Easy**

* [Square Root](https://leetcode.com/problems/sqrtx/)
* [Guess Number Higher or Lower](https://leetcode.com/problems/guess-number-higher-or-lower/)
* [First Bad Version](https://leetcode.com/problems/first-bad-version/)
* [Two Sum II - Input array is sorted](https://leetcode.com/problems/two-sum-ii-input-array-is-sorted/)
* [Valid Perfect Square](https://leetcode.com/problems/valid-perfect-square/)
* [Arranging Coins(Easy)](https://leetcode.com/problems/arranging-coins/)
* [Find Smallest Letter Greater Than Target](https://leetcode.com/problems/find-smallest-letter-greater-than-target/)
* [Kth Missing Positive Number](https://leetcode.com/problems/kth-missing-positive-number/)
* [Search Insert Position](https://leetcode.com/problems/search-insert-position/)
* [Peak Index in a Mountain Array](https://leetcode.com/problems/peak-index-in-a-mountain-array/)
* [Count Negative Numbers in a Sorted Matrix](https://leetcode.com/problems/count-negative-numbers-in-a-sorted-matrix/)
* [Intersection of Two Arrays](https://leetcode.com/problems/intersection-of-two-arrays/)
* [Intersection of Two Arrays II](https://leetcode.com/problems/intersection-of-two-arrays-ii/)
* [Fair Candy Swap](https://leetcode.com/problems/fair-candy-swap/)
* [Check If N and Its Double Exist](https://leetcode.com/problems/check-if-n-and-its-double-exist/)
* [Special Array With X Elements Greater Than or Equal X](https://leetcode.com/problems/special-array-with-x-elements-greater-than-or-equal-x/)
* [Binary Search](https://leetcode.com/problems/binary-search/)

**Medium**

* [Find First and Last Position of Element in Sorted Array](https://leetcode.com/problems/find-first-and-last-position-of-element-in-sorted-array/)
* [Single Element in a Sorted Array](https://leetcode.com/problems/single-element-in-a-sorted-array/)
* [Search in Rotated Sorted Array](https://leetcode.com/problems/search-in-rotated-sorted-array/)
* [Search in Rotated Sorted Array II](https://leetcode.com/problems/search-in-rotated-sorted-array-ii/)
* [Find Minimum in Rotated Sorted Array](https://leetcode.com/problems/find-minimum-in-rotated-sorted-array/)
* [Find Peak Element](https://leetcode.com/problems/find-peak-element/)
* [Find Right Interval](https://leetcode.com/problems/find-right-interval/)
* [Reach a Number](https://leetcode.com/problems/reach-a-number/)
* [Maximum Value at a Given Index in a Bounded Array](https://leetcode.com/problems/maximum-value-at-a-given-index-in-a-bounded-array/)
* [Koko Eating Bananas](https://leetcode.com/problems/koko-eating-bananas/)
* [Minimum Absolute Sum Difference](https://leetcode.com/problems/minimum-absolute-sum-difference/)
* [Search a 2D Matrix](https://leetcode.com/problems/search-a-2d-matrix/)
* [Find a Peak Element II](https://leetcode.com/problems/find-a-peak-element-ii/)
* [Frequency of the Most Frequent Element](https://leetcode.com/problems/frequency-of-the-most-frequent-element/)
* [Find the Duplicate Number](https://leetcode.com/problems/find-the-duplicate-number/)
* [Capacity To Ship Packages Within D Days](https://leetcode.com/problems/capacity-to-ship-packages-within-d-days/)
* [4 Sum](https://leetcode.com/problems/4sum/)

**Hard**

* [Median of Two Sorted Arrays](https://leetcode.com/problems/median-of-two-sorted-arrays/)
* [Find Minimum in Rotated Sorted Array II](https://leetcode.com/problems/find-minimum-in-rotated-sorted-array-ii/)
* [Aggressive cows](https://www.spoj.com/problems/AGGRCOW/)
* [Book allocation](https://www.geeksforgeeks.org/allocate-minimum-number-pages/)
* [Split Array Largest Sum](https://leetcode.com/problems/split-array-largest-sum/)
* [Find in Mountain Array](https://leetcode.com/problems/find-in-mountain-array/)
* [Count smaller number after Self](https://leetcode.com/problems/count-of-smaller-numbers-after-self/)
* [Divide Chocolate Problem](https://curiouschild.github.io/leetcode/2019/06/21/divide-chocolate.html)

**Sorting:**

**Easy**

* [Merge Sorted Array](https://leetcode.com/problems/merge-sorted-array/)
* [Majority Element](https://leetcode.com/problems/majority-element/)
* [Contains Duplicate](https://leetcode.com/problems/contains-duplicate/)
* [Missing Number](https://leetcode.com/problems/missing-number/)
* [Intersection of Two Arrays](https://leetcode.com/problems/intersection-of-two-arrays/)
* [Intersection of Two Arrays II](https://leetcode.com/problems/intersection-of-two-arrays-ii/)
* [Third Maximum Number](https://leetcode.com/problems/third-maximum-number/)
* [Assign Cookies](https://leetcode.com/problems/assign-cookies/)
* [Array Partition I](https://leetcode.com/problems/array-partition-i/)
* [Maximum Product of Three Numbers](https://leetcode.com/problems/maximum-product-of-three-numbers/)
* [Sort Array By Parity](https://leetcode.com/problems/sort-array-by-parity/)
* [Sort Array By Parity II](https://leetcode.com/problems/sort-array-by-parity-ii/)
* [Largest Perimeter Triangle](https://leetcode.com/problems/largest-perimeter-triangle/)
* [Squares of a Sorted Array](https://leetcode.com/problems/squares-of-a-sorted-array/)
* [Matrix Cells in Distance Order](https://leetcode.com/problems/matrix-cells-in-distance-order/)
* [Height Checker](https://leetcode.com/problems/height-checker/)
* [Relative Sort Array](https://leetcode.com/problems/relative-sort-array/)
* [Minimum Absolute Difference](https://leetcode.com/problems/minimum-absolute-difference/)
* [Rank Transform of an Array](https://leetcode.com/problems/rank-transform-of-an-array/)
* [Sort Integers by The Number of 1 Bits](https://leetcode.com/problems/sort-integers-by-the-number-of-1-bits/)
* [How Many Numbers Are Smaller Than the Current Number](https://leetcode.com/problems/how-many-numbers-are-smaller-than-the-current-number/)
* [Maximum Product of Two Elements in an Array](https://leetcode.com/problems/maximum-product-of-two-elements-in-an-array/)
* [Average Salary Excluding the Minimum and Maximum Salary](https://leetcode.com/problems/average-salary-excluding-the-minimum-and-maximum-salary/)
* [Make Two Arrays Equal by Reversing Sub-arrays](https://leetcode.com/problems/make-two-arrays-equal-by-reversing-sub-arrays/)
* [Can Make Arithmetic Progression From Sequence](https://leetcode.com/problems/can-make-arithmetic-progression-from-sequence/)
* [Sort Array by Increasing Frequency](https://leetcode.com/problems/sort-array-by-increasing-frequency/)
* [Special Array With X Elements Greater Than or Equal X](https://leetcode.com/problems/special-array-with-x-elements-greater-than-or-equal-x/)
* [Find all numbers disappeared in an array](https://leetcode.com/problems/find-all-numbers-disappeared-in-an-array/)
* [Set Mismatch](https://leetcode.com/problems/set-mismatch/)
* [2Sum](https://leetcode.com/problems/two-sum/)

**Medium**

* [3Sum](https://leetcode.com/problems/3sum/)
* [3Sum Closest](https://leetcode.com/problems/3sum-closest/)
* [4Sum](https://leetcode.com/problems/4sum/)
* [Group Anagrams](https://leetcode.com/problems/group-anagrams/)
* [Merge Intervals](https://leetcode.com/problems/merge-intervals/)
* [Sort Colors](https://leetcode.com/problems/sort-colors/)
* [Insertion Sort List](https://leetcode.com/problems/insertion-sort-list/)
* [Sort List](https://leetcode.com/problems/sort-list/)
* [Largest Number](https://leetcode.com/problems/largest-number/)
* [Kth Largest Element in an Array](https://leetcode.com/problems/kth-largest-element-in-an-array/)
* [Find the Duplicate Number](https://leetcode.com/problems/find-the-duplicate-number/)
* [Find all Duplicates in an array](https://leetcode.com/problems/find-all-duplicates-in-an-array/)

**Hard**

* [First missing Positive](https://leetcode.com/problems/first-missing-positive/)

**String:**

**Easy**

* [Defanging an Ip address](https://leetcode.com/problems/defanging-an-ip-address/)
* [Shuffle String](https://leetcode.com/problems/shuffle-string/)
* [Goal Parser Interpretation](https://leetcode.com/problems/goal-parser-interpretation/)
* [Count Items Matching a rule](https://leetcode.com/problems/count-items-matching-a-rule/)
* [Sorting the Sentence](https://leetcode.com/problems/sorting-the-sentence/)
* [Check if two strings are equivalent](https://leetcode.com/problems/check-if-two-string-arrays-are-equivalent/)
* [To Lower Case](https://leetcode.com/problems/to-lower-case/)
* [Determine if string halves are alike](https://leetcode.com/problems/determine-if-string-halves-are-alike/)
* [Decrypt String from Alphabet to Integer Mapping](https://leetcode.com/problems/decrypt-string-from-alphabet-to-integer-mapping/)
* [Number of Strings That Appear as Substrings in Word](https://leetcode.com/problems/number-of-strings-that-appear-as-substrings-in-word/)
* [Robot Return to Origin](https://leetcode.com/problems/robot-return-to-origin/)
* [Reverse Words in a String III](https://leetcode.com/problems/reverse-words-in-a-string-iii/)
* [Excel Sheet Column Title](https://leetcode.com/problems/excel-sheet-column-title/)
* [Implement strStr()](https://leetcode.com/problems/implement-strstr/)
* [Long Pressed Name](https://leetcode.com/problems/long-pressed-name/)
* [Valid Palindrome](https://leetcode.com/problems/valid-palindrome/)
* [Valid Palindrome II](https://leetcode.com/problems/valid-palindrome-ii/)
* [Longest Common Prefix](https://leetcode.com/problems/longest-common-prefix/)
* [Maximum Repeating Substring](https://leetcode.com/problems/maximum-repeating-substring/)
* [Check if Binary String Has at Most One Segment of Ones](https://leetcode.com/problems/check-if-binary-string-has-at-most-one-segment-of-ones/)
* [Merge Strings Alternately](https://leetcode.com/problems/merge-strings-alternately/)
* [Reverse Prefix of Word](https://leetcode.com/problems/reverse-prefix-of-word/)
* [Roman to Integer](https://leetcode.com/problems/roman-to-integer/)
* [Valid Parentheses](https://leetcode.com/problems/valid-parentheses/)
* [Length of last word](https://leetcode.com/problems/length-of-last-word/)

**Medium**

* [Jump Game VII](https://leetcode.com/problems/jump-game-vii/)
* [Split Two Strings to Make Palindrome](https://leetcode.com/problems/split-two-strings-to-make-palindrome/)
* [Number of Ways to Split a String](https://leetcode.com/problems/number-of-ways-to-split-a-string/)
* [Sentence Similarity III](https://leetcode.com/problems/sentence-similarity-iii/)
* [Repeated String Match](https://leetcode.com/problems/repeated-string-match/)
* [Next Greater Element III](https://leetcode.com/problems/next-greater-element-iii/)
* [Maximum Number of Removable Characters](https://leetcode.com/problems/maximum-number-of-removable-characters/)
* [Swap Adjacent in LR String](https://leetcode.com/problems/swap-adjacent-in-lr-string/)
* [Multiply Strings](https://leetcode.com/problems/multiply-strings/)
* [Basic Calculator II](https://leetcode.com/problems/basic-calculator-ii/)
* [Minimum Length of String After Deleting Similar Ends](https://leetcode.com/problems/minimum-length-of-string-after-deleting-similar-ends/)
* [Number of Substrings With Only 1s](https://leetcode.com/problems/number-of-substrings-with-only-1s/)
* [Count Number of Homogenous Substrings](https://leetcode.com/problems/count-number-of-homogenous-substrings/)
* [Get Equal Substrings Within Budget](https://leetcode.com/problems/get-equal-substrings-within-budget/)
* [Shifting Letters](https://leetcode.com/problems/shifting-letters/)
* [Minimum Time Difference](https://leetcode.com/problems/minimum-time-difference/)
* [Find Kth Bit in Nth Binary String](https://leetcode.com/problems/find-kth-bit-in-nth-binary-string/)
* [Camelcase Matching](https://leetcode.com/problems/camelcase-matching/)
* [Print Words Vertically](https://leetcode.com/problems/print-words-vertically/)

**Hard**

* [Valid Number](https://leetcode.com/problems/valid-number/)
* [Regular Expression Matching](https://leetcode.com/problems/regular-expression-matching/)
* [Last Substring in Lexicographical Order](https://leetcode.com/problems/last-substring-in-lexicographical-order/)
* [Basic Calculator](https://leetcode.com/problems/basic-calculator/)
* [Minimum Number of Operations to Make String Sorted](https://leetcode.com/problems/minimum-number-of-operations-to-make-string-sorted/)
* [Check If String Is Transformable With Substring Sort Operations](https://leetcode.com/problems/check-if-string-is-transformable-with-substring-sort-operations/)
* [Orderly Queue](https://leetcode.com/problems/orderly-queue/)
* [Special Binary String](https://leetcode.com/problems/special-binary-string/)

**Recursion:**

**Easy**

* [Sum Triangle from Array](https://www.geeksforgeeks.org/sum-triangle-from-array/) GFG
* [Maximum and Minimum value in an array](https://www.geeksforgeeks.org/recursive-programs-to-find-minimum-and-maximum-elements-of-array/) GFG
* [Binary Search using recursion](https://leetcode.com/problems/binary-search/) leetcode
* [First Uppercase Letter in a String](https://www.geeksforgeeks.org/first-uppercase-letter-in-a-string-iterative-and-recursive/) GFG
* [Reverse String](https://leetcode.com/problems/reverse-string/) leetcode
* [Print 1 To N Without Loop](https://practice.geeksforgeeks.org/problems/print-1-to-n-without-using-loops-1587115620/1/) GFG
* [Fibonacci Number](https://leetcode.com/problems/fibonacci-number/) leetcode
* [Special Fibonacci](https://www.codechef.com/problems/FIBXOR01/) CodeChef
* [Length of string using Recursion](https://www.geeksforgeeks.org/program-for-length-of-a-string-using-recursion/) GFG
* [Geek-onacci Number](https://practice.geeksforgeeks.org/problems/geek-onacci-number/0/) GFG
* [Recursive Bubble Sort](https://www.geeksforgeeks.org/recursive-bubble-sort/) GFG
* [Recursive Insertion Sort](https://www.geeksforgeeks.org/recursive-insertion-sort/) GFG
* [Sum of digit of a number using Recursion](https://www.geeksforgeeks.org/sum-digit-number-using-recursion/) GFG
* [Product of two numbers using Recursion](https://www.geeksforgeeks.org/product-2-numbers-using-recursion/) GFG
* [Check Prime or not](https://www.geeksforgeeks.org/recursive-program-prime-number/) GFG
* [Sum of Natural numbers using Recursion](https://www.geeksforgeeks.org/sum-of-natural-numbers-using-recursion/) GFG
* [Power of Two](https://leetcode.com/problems/power-of-two/) leetcode
* [Power of Three](https://leetcode.com/problems/power-of-three/) leetcode
* [Power of Four](https://leetcode.com/problems/power-of-four/) leetcode
* Write a recursive function for given n and a to determine x:

n = a ^ x

a = 2, 3, 4

(2 ^ -31) <= n <= (2 ^ 31) - 1

* [Write a recursive function that returns the factorial of a number.](https://www.hackerrank.com/challenges/30-recursion/problem) HackerRank
* [Write a recursive function to check whether an array is sorted or not.](https://www.geeksforgeeks.org/program-check-array-sorted-not-iterative-recursive) GFG
* [Number of Steps to Reduce a Number to Zero.](https://leetcode.com/problems/number-of-steps-to-reduce-a-number-to-zero/) leetcode
* [Check for balanced paranthesis using recursion without stack.](https://www.geeksforgeeks.org/check-for-balanced-parenthesis-without-using-stack/) GFG
* [Remove consecutive duplicate characters from a string.](https://www.geeksforgeeks.org/remove-consecutive-duplicates-string/) GFG
* [Print all possible palindromic partitions of a string.](https://www.geeksforgeeks.org/given-a-string-print-all-possible-palindromic-partition/) GFG
* [Power Set of permutations of a string in Lexicographic order.](https://www.geeksforgeeks.org/powet-set-lexicographic-order/) GFG

**Medium**

* [Combination Sum](https://leetcode.com/problems/combination-sum/) leetcode
* [Word Search](https://leetcode.com/problems/word-search/) leetcode
* [Target sum](https://leetcode.com/problems/target-sum/) leetcode
* [Find Kth Bit in Nth Binary String](https://leetcode.com/problems/find-kth-bit-in-nth-binary-string/) leetcode
* [K-th Symbol in Grammar](https://leetcode.com/problems/k-th-symbol-in-grammar/) leetcode
* [Count Good Numbers](https://leetcode.com/problems/count-good-numbers/) leetcode
* [N Digit numbers with digits in increasing order](https://practice.geeksforgeeks.org/problems/n-digit-numbers-with-digits-in-increasing-order5903/1/) GFG
* [Pow(x, n)](https://leetcode.com/problems/powx-n/) leetcode
* [Minimum Non-Zero Product of the Array Elements](https://leetcode.com/problems/minimum-non-zero-product-of-the-array-elements/) leetcode
* [Handshakes](https://practice.geeksforgeeks.org/problems/handshakes1303/1/) GFG
* [HackerRank](https://www.hackerrank.com/domains/algorithms?filters%5Bsubdomains%5D%5B%5D=recursion&filters%5Bdifficulty%5D%5B%5D=medium)
* [Divisible Subset](https://www.codechef.com/problems/DIVSUBS) Codechef
* [Perfect squares](https://leetcode.com/problems/perfect-squares/)leetcode
* [decode string](https://leetcode.com/problems/decode-string/)leetcode
* [find the winner of the circular game](https://leetcode.com/problems/find-the-winner-of-the-circular-game/) leetcode
* [Different ways to add parantheses in the expression](https://leetcode.com/problems/different-ways-to-add-parentheses/) leetcode
* [Letter Combinations of a Phone Number](https://leetcode.com/problems/letter-combinations-of-a-phone-number/) leetcode
* [Predict the winner.](https://leetcode.com/problems/predict-the-winner/) leetcode
* [Gray code](https://practice.geeksforgeeks.org/problems/gray-code-1611215248/1/) GFG Google
* [Combination Sum II](https://leetcode.com/problems/combination-sum-ii/) leetcode
* [combination Sum III](https://leetcode.com/problems/combination-sum-iii/) leetcode
* [Sudoku Solver](https://leetcode.com/problems/sudoku-solver/) leetcode
* [Letter tile possibilities](https://leetcode.com/problems/letter-tile-possibilities/) leetcode
* [All Paths From Source to Target](https://leetcode.com/problems/all-paths-from-source-to-target/) leetcode
* [Sort a stack using recursion](https://www.geeksforgeeks.org/sort-a-stack-using-recursion/) GFG
* [Reverse a stack using recursion](https://www.geeksforgeeks.org/reverse-a-stack-using-recursion/) GFG
* [Beautiful Arrangement](https://leetcode.com/problems/beautiful-arrangement/) leetcode
* [Lowest Common Ancestor of a Binary Tree](https://practice.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-binary-tree/1/) GFG Amex
* [Prime numbers after prime P with sum S](https://www.geeksforgeeks.org/prime-numbers-after-prime-p-with-sum-s/) GFG
* [Path with Maximum Gold](https://leetcode.com/problems/path-with-maximum-gold/) leetcode
* [Longest Possible Route in a Matrix with Hurdles](https://www.geeksforgeeks.org/longest-possible-route-in-a-matrix-with-hurdles/) GFG
* [Tug of war](https://www.geeksforgeeks.org/tug-of-war/) GFG Adobe
* [Rat in a maze](https://www.geeksforgeeks.org/rat-in-a-maze-backtracking-2/) GFG
* [Reorder List](https://leetcode.com/problems/reorder-list/) leetcode

**Hard**

* [Parsing A Boolean Expression](https://leetcode.com/problems/parsing-a-boolean-expression/) leetcode
* [Special Binary String](https://leetcode.com/problems/special-binary-string/) leetcode
* [Permutation Sequence](https://leetcode.com/problems/permutation-sequence/) leetcode
* [Next Happy Number](https://practice.geeksforgeeks.org/problems/next-happy-number4538/1/) GFG
* [Basic Calculator](https://leetcode.com/problems/basic-calculator/) leetcode
* [Integer to English Words](https://leetcode.com/problems/integer-to-english-words/) leetcode
* [Maximize Number of Nice Divisors](https://leetcode.com/problems/maximize-number-of-nice-divisors/) leetcode
* [N Queens](https://leetcode.com/problems/n-queens/) leetcode
* [N Queens II](https://leetcode.com/problems/n-queens-ii/) leetcode
* [Word break II](https://leetcode.com/problems/word-break-ii/) leetcode Google
* [Unique paths III](https://leetcode.com/problems/unique-paths-iii/) leetcode
* [Find shortest safe route in a path with landmines](https://www.geeksforgeeks.org/find-shortest-safe-route-in-a-path-with-landmines/) GFG Google
* [Minimum steps to destination](https://practice.geeksforgeeks.org/problems/minimum-number-of-steps-to-reach-a-given-number5234/1/) GFG Amex Adobe
* [Hamiltonian Cycle](https://www.geeksforgeeks.org/hamiltonian-cycle-backtracking-6/) GFG
* [M colorning problem](https://www.geeksforgeeks.org/m-coloring-problem-backtracking-5/) GFG
* [The Knight's tour](https://www.geeksforgeeks.org/the-knights-tour-problem-backtracking-1/) GFG
* [Maximum number possible by doing at-most K swaps](https://www.geeksforgeeks.org/find-maximum-number-possible-by-doing-at-most-k-swaps/) GFG
* [HackerRank](https://www.hackerrank.com/domains/algorithms?filters%5Bsubdomains%5D%5B%5D=recursion&filters%5Bdifficulty%5D%5B%5D=hard)
* [Concatenated Words](https://leetcode.com/problems/concatenated-words/)leetcode

**Bitwise:**

**Easy**

* [Add Binary](https://leetcode.com/problems/add-binary/)
* [Single Number](https://leetcode.com/problems/single-number/)
* [Reverse Bits](https://leetcode.com/problems/reverse-bits/)
* [Number of 1 Bits](https://leetcode.com/problems/number-of-1-bits/)
* [Counting Bits](https://leetcode.com/problems/counting-bits/)
* [Binary Watch](https://leetcode.com/problems/binary-watch/)
* [Hamming Distance](https://leetcode.com/problems/hamming-distance/)
* [Number Complement](https://leetcode.com/problems/number-complement/)
* [Set Mismatch](https://leetcode.com/problems/set-mismatch/)
* [Binary Number with Alternating Bits](https://leetcode.com/problems/binary-number-with-alternating-bits/)
* [Prime Number of Set Bits in Binary Representation](https://leetcode.com/problems/prime-number-of-set-bits-in-binary-representation/)
* [Binary Gap](https://leetcode.com/problems/binary-gap/)
* [Number of Steps to Reduce a Number to Zero](https://leetcode.com/problems/number-of-steps-to-reduce-a-number-to-zero/)
* [Sort Integers by The Number of 1 Bits](https://leetcode.com/problems/sort-integers-by-the-number-of-1-bits/)
* [XOR Operation in an Array](https://leetcode.com/problems/xor-operation-in-an-array/)
* [Count the Number of Consistent Strings](https://leetcode.com/problems/count-the-number-of-consistent-strings/)
* [Decode XORed Array](https://leetcode.com/problems/decode-xored-array/)
* [Sum of All Subset XOR Totals](https://leetcode.com/problems/sum-of-all-subset-xor-totals/)
* [Longest Nice Substring](https://leetcode.com/problems/longest-nice-substring/)

**Medium**

* [Subsets](https://leetcode.com/problems/subsets/)
* [Subsets II](https://leetcode.com/problems/subsets-ii/)
* [Single Number II](https://leetcode.com/problems/single-number-ii/)
* [Divide Two Integers](https://leetcode.com/problems/divide-two-integers/)
* [Gray Code](https://leetcode.com/problems/gray-code/)
* [Repeated DNA Sequences](https://leetcode.com/problems/repeated-dna-sequences/)

**Hard**

* [Minimum Number of Flips to onvert Binary Matrix to zero matrix](https://leetcode.com/problems/minimum-number-of-flips-to-convert-binary-matrix-to-zero-matrix/)
* [Minimum cost to connect two group of points](https://leetcode.com/problems/minimum-cost-to-connect-two-groups-of-points/)
* [Find XOR Sum of All Pairs Bitwise AND](https://leetcode.com/problems/find-xor-sum-of-all-pairs-bitwise-and/)

**Math:**

**Easy**

* [Roman to Integer.](https://leetcode.com/problems/roman-to-integer/)
* [Happy Number.](https://leetcode.com/problems/happy-number/)
* [Armstrong Numbers](https://practice.geeksforgeeks.org/problems/armstrong-numbers2727/1/?category%5B%5D=Mathematical&category%5B%5D=Mathematical&page=2&query=category%5B%5DMathematicalpage2category%5B%5DMathematical)
* [Power of Four](https://leetcode.com/problems/power-of-four/)
* [Factorial](https://practice.geeksforgeeks.org/problems/factorial5739/1/?category%5B%5D=Mathematical&category%5B%5D=Mathematical&page=3&query=category%5B%5DMathematicalpage3category%5B%5DMathematical)
* [Excel Sheet Column Title](https://leetcode.com/problems/excel-sheet-column-title/)
* [Maximum Product of Three Numbers](https://leetcode.com/problems/maximum-product-of-three-numbers/)
* [Climbing Stairs](https://leetcode.com/problems/climbing-stairs/)
* [Self Dividing Numbers](https://leetcode.com/problems/self-dividing-numbers/)
* [Add Binary](https://leetcode.com/problems/add-binary/)
* [Power of Two](https://leetcode.com/problems/power-of-two/)

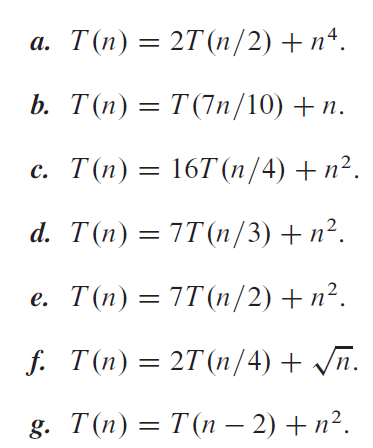
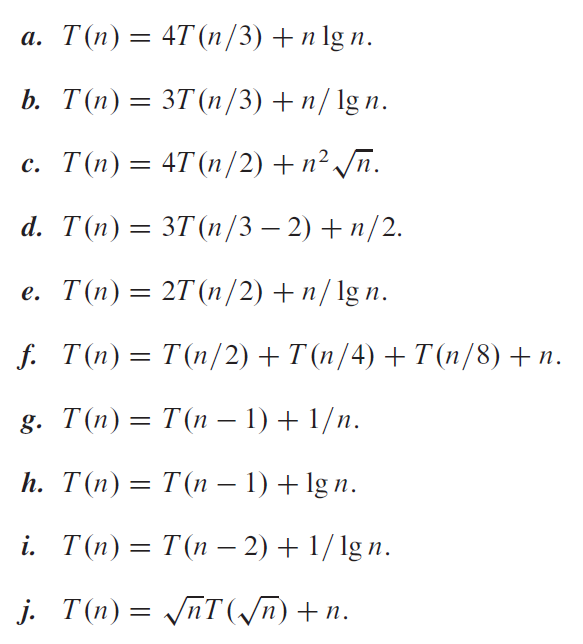
**Medium**

* [Integer to Roman](https://leetcode.com/problems/integer-to-roman/)
* [Unique Paths](https://leetcode.com/problems/unique-paths/)
* [Gray Code](https://leetcode.com/problems/gray-code/)
* [Perfect Squares](https://leetcode.com/problems/perfect-squares/)
* [Next Greater Element III](https://leetcode.com/problems/next-greater-element-iii/)
* [Angle Between Hands of a Clock](https://leetcode.com/problems/angle-between-hands-of-a-clock/)
* [String to Integer (atoi)](https://leetcode.com/problems/string-to-integer-atoi/)
* [The kth Factor of n](https://leetcode.com/problems/the-kth-factor-of-n/)
* [Queries on Number of Points Inside a Circle](https://leetcode.com/problems/queries-on-number-of-points-inside-a-circle/)
* [Product of Array Except Self](https://leetcode.com/problems/product-of-array-except-self/)
* [Multiply Strings](https://leetcode.com/problems/multiply-strings/)
* [Encode and Decode TinyURL](https://leetcode.com/problems/encode-and-decode-tinyurl/)
* [Integer Break](https://leetcode.com/problems/integer-break/)

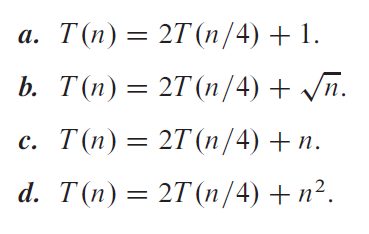
**Hard**

* [Permutation Sequence](https://leetcode.com/problems/permutation-sequence/)
* [Basic Calculator](https://leetcode.com/problems/basic-calculator/)
* [Max Points on a Line](https://leetcode.com/problems/max-points-on-a-line/)
* [Number of Digit One](https://leetcode.com/problems/number-of-digit-one/)

**Recurrence Questions:**

[](https://github.com/crishabhkumar/crishabhkumar/blob/main/Extra%20images/Screenshot%20(46).png) [](https://github.com/crishabhkumar/crishabhkumar/blob/main/Extra%20images/Screenshot%20(47).png)

**Akra Bazzi:**

[](https://github.com/crishabhkumar/crishabhkumar/blob/main/Extra%20images/Screenshot%20(48).png)

**OOP:**

**Important Topics**

* [Kunal's notes](https://github.com/kunal-kushwaha/DSA-Bootcamp-Java/tree/main/lectures/17-oop/notes)
* [Object Oriented Paradigms](https://www.geeksforgeeks.org/object-oriented-programming-oops-concept-in-java/) GFG
* [Constructors in Java](https://www.geeksforgeeks.org/constructors-in-java/) GFG
* [Constructor chaining in Java](https://www.geeksforgeeks.org/constructor-chaining-java-examples/) GFG
* [Inheritance in Java](https://www.geeksforgeeks.org/inheritance-in-java/) GFG
* [Overriding in Java](https://www.geeksforgeeks.org/overriding-in-java/) GFG
* [Abstraction in Java](https://www.geeksforgeeks.org/abstraction-in-java-2/) GFG
* [Access modifiers in Java](https://www.geeksforgeeks.org/access-modifiers-java/) GFG
* [Wrapper Classes in Java](https://www.geeksforgeeks.org/wrapper-classes-java/) GFG
* [Need of wrapper classes in Java](https://www.geeksforgeeks.org/need-of-wrapper-classes-in-java/) GFG
* [this keyowrd in Java](https://www.javatpoint.com/this-keyword) Javatpoint
* [Important keyowrds in Java inheritance - extends,implements,super,instanceof](https://www.tutorialspoint.com/java/java_inheritance.htm) Tutorialspoint
* [Instance initializer block](https://www.javatpoint.com/instance-initializer-block) Javatpoint
* [Dynamic Method Dispatch or Runtime Polymorphism in Java](https://www.geeksforgeeks.org/dynamic-method-dispatch-runtime-polymorphism-java/) GFG
* [Cohesion in Java](https://www.geeksforgeeks.org/cohesion-in-java/) GFG
* [Coupling in Java](https://www.geeksforgeeks.org/coupling-in-java/) GFG

**Interview Questions**

* [Can we declare main() method as private or protected or with no access modifier in java?](https://www.tutorialspoint.com/can-we-declare-main-method-as-private-or-protected-or-with-no-access-modifier-in-java) Tutorialspoint
* [Difference between Method Overloading and Method Overriding in Java?](https://www.geeksforgeeks.org/difference-between-method-overloading-and-method-overriding-in-java/) GFG
* [Can we declare interface members as private or protected in java8?](https://www.tutorialspoint.com/can-we-declare-interface-members-as-private-or-protected-in-java8) Tutorialspoint
* [Can we override a private or static method in Java?](https://www.tutorialspoint.com/can-we-override-a-private-or-static-method-in-java) Tutorialspoint
* [What is diamond problem in Java?](https://www.javatpoint.com/what-is-diamond-problem-in-java) Javatpoint
* [Can we pass this keyword as argument in a method call?](https://www.javatpoint.com/this-keyword#:~:text=this%3A%20to%20pass%20as%20an%20argument%20in%20the%20method) Javatpoint
* [Java constructor returns a value, but what?](https://www.javatpoint.com/java-constructor-returns-a-value-but-what) Javatpoint
* [What is covariant return type?](https://www.javatpoint.com/covariant-return-type) Javatpoint
* [Private classes and singleton classes in Java](https://www.geeksforgeeks.org/private-constructors-and-singleton-classes-in-java/) GFG
* [How to prevent Singleton Pattern from Reflection, Serialization and Cloning?](https://www.geeksforgeeks.org/prevent-singleton-pattern-reflection-serialization-cloning/) GFG
* [Double-Check Locking For Singleton Class](https://www.geeksforgeeks.org/java-program-to-demonstrate-the-double-check-locking-for-singleton-class/) GFG

**Practice Problems**

* [Inheritance I](https://www.hackerrank.com/challenges/java-inheritance-1/problem?isFullScreen=true) HackerRank
* [Inheritance II](https://www.hackerrank.com/challenges/java-inheritance-2/problem?isFullScreen=true) HackerRank
* [Java Abstract class](https://www.hackerrank.com/challenges/java-abstract-class/problem?isFullScreen=true) HackerRank
* [Interface](https://www.hackerrank.com/challenges/java-interface/problem?isFullScreen=true) HackerRank
* [Method Overriding I](https://www.hackerrank.com/challenges/java-method-overriding/problem?isFullScreen=true) HackerRank
* [Method Overriding II (Use super keyword)](https://www.hackerrank.com/challenges/java-method-overriding-2-super-keyword/problem?isFullScreen=true) HackerRank
* [Java instanceof keyword](https://www.hackerrank.com/challenges/java-instanceof-keyword/problem?isFullScreen=true) HackerRank
* [Java Iterator](https://www.hackerrank.com/challenges/java-iterator/problem?isFullScreen=true) HackerRank

**Linked List:**

**Easy**

* [Convert Binary Number in a Linked List to Integer](https://leetcode.com/problems/convert-binary-number-in-a-linked-list-to-integer/) leetcode
* [Reverse Linked List](https://leetcode.com/problems/reverse-linked-list/) leetcode
* [Middle of the Linked List](https://leetcode.com/problems/middle-of-the-linked-list/) leetcode
* [Merge Two Sorted Lists](https://leetcode.com/problems/merge-two-sorted-lists/) leetcode
* [Delete Node in a Linked List](https://leetcode.com/problems/delete-node-in-a-linked-list/) leetcode
* [Palindrome Linked List](https://leetcode.com/problems/palindrome-linked-list/) leetcode Snapdeal
* [Intersection of Two Linked Lists](https://leetcode.com/problems/intersection-of-two-linked-lists/) leetcode
* [Linked List Cycle](https://leetcode.com/problems/linked-list-cycle/) leetcode Samsung
* [Remove Duplicates from Sorted List](https://leetcode.com/problems/remove-duplicates-from-sorted-list/)leetcode
* [Find All Numbers Disappeared in an Array](https://leetcode.com/problems/find-all-numbers-disappeared-in-an-array/) leetcode
* [Remove Linked List Elements](https://leetcode.com/problems/remove-linked-list-elements/) leetcode

**Medium**

* [Design Twitter](https://leetcode.com/problems/design-twitter/) leetcode
* [Design Linked List](https://leetcode.com/problems/design-linked-list/) leetcode
* [Reverse Linked List II](https://leetcode.com/problems/reverse-linked-list-ii/) leetcode
* [Reorder List](https://leetcode.com/problems/reorder-list/) leetcode
* [Remove Nth Node From End of List](https://leetcode.com/problems/remove-nth-node-from-end-of-list/) leetcode HSBC
* [Swapping Nodes in a Linked List](https://leetcode.com/problems/swapping-nodes-in-a-linked-list/) leetcode
* [Add Two Numbers](https://leetcode.com/problems/add-two-numbers/) leetcode TCS Amazon Microsoft Facebook Qualcomm
* [Add Two Numbers II](https://leetcode.com/problems/add-two-numbers-ii/) leetcode
* [Linked List Cycle II](https://leetcode.com/problems/linked-list-cycle-ii/) leetcode
* [Flatten a Multilevel Doubly Linked List](https://leetcode.com/problems/flatten-a-multilevel-doubly-linked-list/) leetcode Amazon
* [Rotate List](https://leetcode.com/problems/rotate-list/) leetcode Microsoft
* [Copy List with Random Pointer](https://leetcode.com/problems/copy-list-with-random-pointer/) leetcode
* [LRU Cache](https://leetcode.com/problems/lru-cache/) leetcode
* [Remove Duplicates from Sorted List II](https://leetcode.com/problems/remove-duplicates-from-sorted-list-ii/) leetcode Amex
* [Design Browser History](https://leetcode.com/problems/design-browser-history/) leetcode
* [Partition list](https://leetcode.com/problems/partition-list/) leetcode
* [Find first node of loop in a linked list](https://www.geeksforgeeks.org/find-first-node-of-loop-in-a-linked-list/) GFG
* [Swap Nodes in Pairs](https://leetcode.com/problems/swap-nodes-in-pairs/)leetcode
* [Remove Zero Sum Consecutive Nodes from Linked List](https://leetcode.com/problems/remove-zero-sum-consecutive-nodes-from-linked-list/) leetcode
* [Insertion Sort List](https://leetcode.com/problems/insertion-sort-list/)leetcode
* [Reverse Nodes in Even Length Groups](https://leetcode.com/problems/reverse-nodes-in-even-length-groups/)leetcode
* [Linked List Random Node](https://leetcode.com/problems/linked-list-random-node/)leetcode
* [Sort List](https://leetcode.com/problems/sort-list/)leetcode
* [Merge In Between Linked Lists](https://leetcode.com/problems/merge-in-between-linked-lists/)leetcode
* [Design Browser History](https://leetcode.com/problems/design-browser-history/)leetcode
* [Delete the Middle Node of a Linked List](https://leetcode.com/problems/delete-the-middle-node-of-a-linked-list/)leetcode
* [Next Greater Node In Linked List](https://leetcode.com/problems/next-greater-node-in-linked-list/)leetcode
* [Odd Even Linked List](https://leetcode.com/problems/odd-even-linked-list/)leetcode
* [Linked List Random Node](https://leetcode.com/problems/linked-list-random-node/)leetcode
* [Split Linked List in Parts](https://leetcode.com/problems/split-linked-list-in-parts/)leetcode
* [Find the Minimum and Maximum Number of Nodes Between Critical Points](https://leetcode.com/problems/find-the-minimum-and-maximum-number-of-nodes-between-critical-points/)leetcode

**Hard**

* [Reverse Nodes in k-Group](https://leetcode.com/problems/reverse-nodes-in-k-group/) leetcode
* [LFU Cache](https://leetcode.com/problems/lfu-cache/) leetcode Google
* [Merge k Sorted Lists](https://leetcode.com/problems/merge-k-sorted-lists/) leetcode
* [Clone a linked list with next and random pointer](https://www.geeksforgeeks.org/clone-linked-list-next-random-pointer-o1-space/) GFG Google Flipkart
* [All O'one Data Structure](https://leetcode.com/problems/all-oone-data-structure/) leetcode
* [Design Skiplist](https://leetcode.com/problems/design-skiplist/) leetcode

**Stack and Queue:**

**Easy**

* [Next greater element I](https://leetcode.com/problems/next-greater-element-i/) leetcode
* [Valid Parentheses](https://leetcode.com/problems/valid-parentheses/) leetcode
* [Min Stack](https://leetcode.com/problems/min-stack/) leetcode
* [Remove Outermost Parentheses](https://leetcode.com/problems/remove-outermost-parentheses/) leetcode
* [Remove All Adjacent Duplicates In String](https://leetcode.com/problems/remove-all-adjacent-duplicates-in-string/) leetcode
* [Number of Recent Calls](https://leetcode.com/problems/number-of-recent-calls/) leetcode
* [Reverse First K elements of Queue](https://practice.geeksforgeeks.org/problems/reverse-first-k-elements-of-queue/1/) GFG
* [Delete middle element of a stack](https://practice.geeksforgeeks.org/problems/delete-middle-element-of-a-stack/1/) GFG
* [Inorder Traversal (Iterative)](https://practice.geeksforgeeks.org/problems/inorder-traversal-iterative/1/) GFG
* [Preorder traversal (Iterative)](https://practice.geeksforgeeks.org/problems/preorder-traversal-iterative/1/) GFG
* [Flood fill](https://leetcode.com/problems/flood-fill/) leetcode
* [Implement Queue using Stacks](https://leetcode.com/problems/implement-queue-using-stacks/) leetcode

**Medium**

* [Design a Stack With Increment Operation](https://leetcode.com/problems/design-a-stack-with-increment-operation/) leetcode
* [Minimum Add to Make Parentheses Valid](https://leetcode.com/problems/minimum-add-to-make-parentheses-valid/) leetcode
* [Decode String](https://leetcode.com/problems/decode-string/) leetcode
* [Asteroid Collision](https://leetcode.com/problems/asteroid-collision/) leetcode
* [132 Pattern](https://leetcode.com/problems/132-pattern/) leetcode
* [Design circular Queue](https://leetcode.com/problems/design-circular-queue/) leetcode
* [Find the Most Competitive Subsequence](https://leetcode.com/problems/find-the-most-competitive-subsequence/) leetcode
* [Design Front Middle Back Queue](https://leetcode.com/problems/design-front-middle-back-queue/) leetcode
* [Circular tour](https://practice.geeksforgeeks.org/problems/circular-tour/1) GFG Amex Amazon
* [Task Scheduler](https://leetcode.com/problems/task-scheduler/) leetcode
* [Stock span problem](https://practice.geeksforgeeks.org/problems/stock-span-problem-1587115621/1/) GFG
* [Max Rectangle](https://practice.geeksforgeeks.org/problems/max-rectangle/1/) GFG
* [The Celebrity Problem](https://practice.geeksforgeeks.org/problems/the-celebrity-problem/1/) Google GFG
* [Maximum Rectangular Area in a Histogram](https://practice.geeksforgeeks.org/problems/maximum-rectangular-area-in-a-histogram-1587115620/1/) GFG
* [Binary Tree Right Side View](https://leetcode.com/problems/binary-tree-right-side-view/) leetcode
* [Snake and Ladders](https://leetcode.com/problems/snakes-and-ladders/) leetcode

**Hard**

* [Longest Valid Parantheses](https://leetcode.com/problems/longest-valid-parentheses/) leetcode
* [Sliding window maximum](https://leetcode.com/problems/sliding-window-maximum/) leetcode
* [Brace Expansion II](https://leetcode.com/problems/brace-expansion-ii/) leetcode
* [Card Rotation](https://practice.geeksforgeeks.org/problems/card-rotation5834/1/) GFG
* [Minimum steps to reach target by a Knight](https://www.geeksforgeeks.org/minimum-steps-reach-target-knight/) GFG
* [Count number of islands](https://leetcode.com/problems/number-of-islands/) leetcode