ARRAYS-

1. Find pair with given sum in the array
2. Check if subarray with 0 sum is exists or not
3. Print all sub-arrays with 0 sum
4. Sort binary array in linear time
5. Find a duplicate element in a limited range array
6. Find largest sub-array formed by consecutive integers
7. Find maximum length sub-array having given sum
8. Find maximum length sub-array having equal number of 0's and 1's
9. Sort an array containing 0's, 1's and 2's (Dutch national flag problem)
10. Inplace merge two sorted arrays
11. Merge two arrays by satisfying given constraints
12. Find index of 0 to replaced to get maximum length sequence of continuous ones
13. Find maximum product of two integers in an array
14. Shuffle a given array of elements (Fisher–Yates shuffle)
15. Rearrange the array with alternate high and low elements
16. Find equilibrium index of an array
17. Find majority element in an array (Boyer–Moore majority vote algorithm)
18. Move all zeros present in the array to the end
19. Replace each element of array with product of every other element without using / operator
20. Find Longest Bitonic Subarray in an array
21. Find maximum difference between two elements in the array by satisfying given constraints
22. Maximum subarray problem (Kadane's algorithm)
23. Print continuous subarray with maximum sum
24. Maximum Sum Circular Subarray
25. Find all distinct combinations of given length
26. Find all distinct combinations of given length with repetition allowed
27. Find maximum sequence of continuous 1's formed by replacing at-most k zeroes by ones
28. Find minimum sum subarray of given size k
29. Find subarray having given sum in given array of integers
30. Find the length of smallest subarray whose sum of elements is greater than the given number
31. Find largest number possible from set of given numbers
32. Find the smallest window in array sorting which will make the entire array sorted
33. Find maximum sum path involving elements of given arrays
34. Maximum profit earned by buying and selling shares any number of times
35. Trapping Rain Water within given set of bars
36. Longest Increasing Subsequence
37. Longest Decreasing Subsequence Problem
38. Find maximum product subarray in a given array
39. Find maximum sum of subsequence with no adjacent elements

40. Find minimum platforms needed in the station so to avoid any delay in arrival of any train
41. Decode the array constructed from another array
42. Sort an array using one swap
43. Find Triplet with given sum in an array
44. Length of longest continuous sequence with same sum in given binary arrays
45. Rearrange array such that A[A[i]] is set to i for every element A[i]
46. Reverse every consecutive m elements of the given subarray
47. Maximum Product Subset Problem
48. Find pairs with given difference k in the array
49. Find pairs with given difference k in the array | Constant space solution
50. 4 sum problem | Quadruplets with given sum
51. Print all quadruplets with given sum | 4-sum problem extended
52. Find odd occurring element in an array in single traversal
53. Find two odd occurring element in an array without using any extra space
54. Quickselect Algorithm
55. Print all Triplets that forms Arithmetic Progression
56. Print all triplets that forms Geometric Progression
57. Print all combination of numbers from 1 to n having sum n
58. Replace each element of the array by its corresponding rank in the array
59. Print all Triplets in an array with sum less than or equal to given number
60. Group elements of an array based on their first occurrence
61. Find minimum difference between index of two given elements present in the array
62. Find maximum absolute difference between sum of two non-overlapping sub-arrays
63. Find all Symmetric Pairs in an Array of Pairs
64. Partition an array into two sub-arrays with the same sum
65. Find count of distinct elements in every sub-array of size k
66. Find two numbers with maximum sum formed by array digits
67. Print all sub-arrays of an array having distinct elements
68. Find a Triplet having Maximum Product in an Array
69. Find ways to calculate a target from elements of specified array
70. Find Minimum Index of Repeating Element in an Array
71. Generate Random Input from an Array according to given Probabilities
72. Find pair in an array having minimum absolute sum
73. Find Index of Maximum Occurring Element with Equal Probability
74. Check if an Array is Formed by Consecutive Integers
75. Find two non-overlapping pairs having same sum in an array
76. Find Minimum Product among all Combinations of Triplets in an Array
77. Replace every element of an array with the least greater element on its right
78. Find all odd occurring elements in an array having limited range of elements
79. Add elements of two arrays into a new array
80. Count the distinct absolute values in the sorted array
81. Print all combinations of positive integers in increasing order that sum to a given number
82. Find all distinct combinations of given length - Part 2
83. Find subarrays with given sum in an array
84. Find the surpasser count for each element of an array

85. Find maximum length sequence of continuous ones (Using Sliding Window)
86. Find maximum length sequence of continuous ones
87. Merging Overlapping Intervals
88. Activity Selection Problem
89. Job Sequencing Problem with Deadlines
90. Introduction to Priority Queues using Binary Heaps
91. Min Heap and Max Heap Implementation in C++
92. Min Heap and Max Heap Implementation in Java
93. Heap Sort (Out-of-place and In-place implementation in C++ and C)
94. Check if given array represents min heap or not
95. Convert Max Heap to Min Heap in linear time
96. Find K'th largest element in an array
97. Sort a K-Sorted Array
98. Merge M sorted lists of variable length
99. Find K'th smallest element in an array
100. Find smallest range with at-least one element from each of the given lists
101. Merge M sorted lists each containing N elements
102. Insertion sort | Iterative & Recursive
103. Selection sort | Iterative & Recursive
104. Bubble sort | Iterative & Recursive
105. Merge Sort
106. Quicksort
107. Iterative Implementation of Quicksort
108. Hybrid QuickSort
109. Quicksort using Dutch National Flag Algorithm
110. Quick Sort using Hoare's Partitioning scheme
111. External merge sort
112. Custom Sort | Sort elements by their frequency and Index
113. Custom Sort | Sort elements of the array by order of elements defined by the second array
114. Inversion Count of an array
115. Segregate positive and negative integers in linear time
116. Binary Search
117. Ternary Search vs Binary search
118. Interpolation search
119. Exponential search
120. Find number of rotations in a circularly sorted array
121. Search an element in a circular sorted array
122. Find first or last occurrence of a given number in a sorted array
123. Count occurrences of a number in a sorted array with duplicates
124. Find smallest missing element from a sorted array
125. Find Floor and Ceil of a number in a sorted array
126. Search in a nearly sorted array in O(logn) time
127. Find number of 1's in a sorted binary array
128. Find the peak element in an array
129. Maximum Sum Subarray using Divide & Conquer
130. Find Minimum and Maximum element in an array using minimum comparisons

131. Matrix Chain Multiplication
0-1 Knapsack problem
132. Maximize value of the expression
133. Partition problem
134. Subset sum problem
135. Minimum Sum Partition problem
136. Rod Cutting
137. Coin change-making problem (unlimited supply of coins)
138. Coin Change Problem (Total number of ways to get the denomination of coins)
139. Longest alternating subsequence
140. Combinations of words formed by replacing given numbers with corresponding alphabets
141. Decode the given sequence to construct minimum number without repeated digits
142. All combinations of elements satisfying given constraints
143. Find Missing Term in a Sequence in log(n) time
144. Print all distinct Subsets of a given Set
145. Find Floor and Ceil of a number in a sorted array (Recursive solution)
146. Set both elements of a binary array to 0 in single line
147. K-Partition Problem | Printing all Partitions
148. 3 Partition Problem
149. 3-partition problem extended | Print all partitions
150. Iterative Merge Sort Algorithm (Bottom-up Merge Sort)
151. Find two duplicate elements in an limited range array (using XOR)
152. Find missing number and duplicate elements in an array
153. Find Minimum and Maximum element in an array by doing minimum comparisons
154. Find Frequency of each element in a sorted array containing duplicates
155. Difference between Subarray, Subsequence and Subset