

### Intermediate level Questions:

1. Find the Union and Intersection of the two sorted arrays.

[practice here: <a href="https://practice.geeksforgeeks.org/problems/union-of-two-arrays/0">https://practice.geeksforgeeks.org/problems/union-of-two-arrays/0</a>]

2. Write a program to cyclically rotate an array by one.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/cyclically-rotate-an-array-by-one/0">https://practice.geeksforgeeks.org/problems/cyclically-rotate-an-array-by-one/0</a>]

3. You are given a list of n-1 integers and these integers are in the range of 1 to n. There are no duplicates in the list. One of the integers is missing in the list. Write an efficient code to find the missing integer.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/missing-number-in-array/0">https://practice.geeksforgeeks.org/problems/missing-number-in-array/0</a>]

4. Find all pairs on integer array whose sum is equal to given number.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/count-pairs-with-given-sum/0">https://practice.geeksforgeeks.org/problems/count-pairs-with-given-sum/0</a>]

5. Find duplicates in an array.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/find-duplicates-in-an-array/1">https://practice.geeksforgeeks.org/problems/find-duplicates-in-an-array/1</a>]

**6.** Sort an Array using Quicksort algorithm.

[Follow link: <a href="https://www.geeksforgeeks.org/quick-sort/">https://www.geeksforgeeks.org/quick-sort/</a>]

7. Find common elements in three sorted arrays

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/common-elements/0">https://practice.geeksforgeeks.org/problems/common-elements/0</a>]

8. Find the first repeating element in an array of integers.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/first-repeating-element/0">https://practice.geeksforgeeks.org/problems/first-repeating-element/0</a>]

9. Find the first non-repeating element in a given array of integers.

[Solution: <a href="https://www.geeksforgeeks.org/non-repeating-element/">https://www.geeksforgeeks.org/non-repeating-element/</a>]

## 10. Given an array with all distinct elements, find the largest three elements. Expected time complexity is O(n) and extra space is O(1).

Input:  $arr[] = \{10, 4, 3, 50, 23, 90\}$ Output: 90, 50, 23

# 11.Rearrange the array in alternating positive and negative items with **O(1)** extra space. [follow link: <a href="https://www.geeksforgeeks.org/rearrange-array-alternating-positive-negative-items-o1-extra-space/">https://www.geeksforgeeks.org/rearrange-array-alternating-positive-negative-items-o1-extra-space/</a>]

#### 12. Find if there is any subarray with sum equal to zer

 $\left[ Practice \ here: \ \underline{https://practice.geeksforgeeks.org/problems/subarray-with-0-sum/0} \ \right]$ 

#### 13. Find Largest sum contiguous Subarray. [Very Important]

[Practice here: https://practice.geeksforgeeks.org/problems/kadanes-algorithm/0]

#### 14. Find the factorial of a large number.

[Practice here: https://practice.geeksforgeeks.org/problems/factorials-of-large-numbers/0]

#### 15. Find Maximum Product Subarray.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/maximum-product-subarray/0">https://practice.geeksforgeeks.org/problems/maximum-product-subarray/0</a>]

#### 16. Find longest consecutive subsequence.

[Practice here: https://practice.geeksforgeeks.org/problems/longest-consecutive-subsequence/0]

#### 17. Find the minimum element in a rotated and sorted array.

 $[Practice\ here:\ \underline{https://practice.geeksforgeeks.org/problems/minimum-element-in-a-sorted-and-notated-array/0}\ ]$ 

## 18. Given an array of size n and a number k, fin all elements that appear more than n/k times.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/count-element-occurences/1">https://practice.geeksforgeeks.org/problems/count-element-occurences/1</a>]

#### 19. GCD of given index ranges in an array

[Solution: <a href="https://www.geeksforgeeks.org/gcds-of-a-given-index-ranges-in-an-array/">https://www.geeksforgeeks.org/gcds-of-a-given-index-ranges-in-an-array/</a>]

#### 20. Maximum profit by buying and selling a share at most twice.

 $[\ Practice\ here: \underline{https://www.geeksforgeeks.org/maximum-profit-by-buying-and-selling-a-share-at-most-twice/}\ ]$ 

21. Minimize the maximum difference between the heights.

[ADOBE spl.]

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/minimize-the-heights/0">https://practice.geeksforgeeks.org/problems/minimize-the-heights/0</a>]

22. Minimum number of Jumps to reach end.

[Practice here: https://practice.geeksforgeeks.org/problems/minimum-number-of-jumps/0]

23. Find the two repetitive elements in a given array.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/two-repeated-elements/0">https://practice.geeksforgeeks.org/problems/two-repeated-elements/0</a>]

24. Find a triplet that sum to a given value.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/triplet-sum-in-array/0">https://practice.geeksforgeeks.org/problems/triplet-sum-in-array/0</a>]

- 25. Create an N\*M matrix and take input from the user to populate it and then print the matrix
- 26. Find the row with maximum number of 1's.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/row-with-max-1s/0">https://practice.geeksforgeeks.org/problems/row-with-max-1s/0</a>]

27. Find the median in a row wise sorted matrix.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/median-in-a-row-wise-sorted-matrix/0">https://practice.geeksforgeeks.org/problems/median-in-a-row-wise-sorted-matrix/0</a>]

28. Print the matrix in a Spiral manner. [Very IMP]

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/spirally-traversing-a-matrix/0">https://practice.geeksforgeeks.org/problems/spirally-traversing-a-matrix/0</a>

29. Find whether an array is a subset of another array.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/array-subset-of-another-array/0">https://practice.geeksforgeeks.org/problems/array-subset-of-another-array/0</a>]

30. Implement two Stacks in an array.

[Practice here: <a href="https://practice.geeksforgeeks.org/problems/implement-two-stacks-in-an-array/1">https://practice.geeksforgeeks.org/problems/implement-two-stacks-in-an-array/1</a>]