

**Find the Maximum Element in an Array:**

Write a Java program to find the maximum element in an array of integers.

**Find the Minimum Element in an Array:**

Write a Java program to find the minimum element in an array of integers.

**Find the Second Largest Element in an Array:**

Write a Java program to find the second largest element in an array of integers.

**Find the Kth Smallest Element in an Unsorted Array:**

Write a Java program to find the Kth smallest element in an unsorted array of integers.

**Find Duplicates in an Array:**

Write a Java program to find and print all the duplicate elements in an array.

**Rotate an Array:**

Write a Java program to rotate an array to the right by a given number of positions.

**Find Subarray with Maximum Sum (Kadane's Algorithm):**

Write a Java program to find the subarray with the maximum sum in an array of integers.

**Remove Duplicates from a Sorted Array:**

Write a Java program to remove duplicate elements from a sorted array in-place and return the length of the new array.

**Merge Two Sorted Arrays:**

Write a Java program to merge two sorted arrays into a single sorted array.

**Search for an Element in a Rotated Sorted Array:**

Write a Java program to search for a target element in a rotated sorted array.

**Count Inversions in an Array:**

Write a Java program to count the number of inversions in an array.

**Find Missing Number in an Array of 1 to N:**

Write a Java program to find the missing number in an array containing elements from 1 to N.

**Dutch National Flag Problem (Sort 0s, 1s, and 2s):**

Write a Java program to sort an array containing 0s, 1s, and 2s.

**Find the Majority Element:**

Write a Java program to find the majority element in an array, which occurs more than  $N/2$  times.

**Product of Array Except Self:**

Write a Java program to compute the product of an array except for the current element.

**Trapping Rainwater:**

Write a Java program to calculate the amount of water that can be trapped between the bars of an elevation map.

**Best Time to Buy and Sell Stock:**

Write a Java program to find the maximum profit that can be obtained by buying and selling stocks.

**Spiral Matrix Traversal:**

Write a Java program to traverse a 2D matrix in a spiral order.

**Two Sum:**

Write a Java program to find two elements in an array that sum up to a specific target.

**Three Sum:**

Write a Java program to find all unique triplets in an array that sum up to zero.

These are just a few examples of common array-related coding questions that you might encounter in interviews or coding competitions. Understanding these problems and their solutions will help you improve your problem-solving skills in Java.