**Assignment of Array in Java**

**1. Take 10 integer inputs from the user and store them in an array. Again ask the user to give a number. Now, tell the user whether that number is present in the array or not.**

**2. Take 20 integer inputs from the user and print the following: number of positive numbers, number of negative numbers, number of odd numbers, number of even numbers and number of 0s.**

**3. Take 10 integer inputs from the user and store them in an array. Now, copy all the elements in another array but in reverse order.**

**4. Write a program to find the sum and product of all elements of an array.**

**5. Find largest and smallest elements of an array.**

**6. Write a program to check if elements of an array are same or not it read from front or back.**

**7. Consider an integer array, the number of elements in which is determined by the user. The elements are also taken as input from the user. Write a program to find those pairs of elements that have the maximum and minimum difference among all element pairs.**

**8. If the input array is [10, 12, 20, 30, 25, 40, 32, 31, 35, 50, 60], your program should be able to find that the sub array lies between the indexes 3 and 8.**

**9. Take an array of length n where all the numbers are nonnegative and unique. Find the element in the array possessing the highest value. Split the element into two parts where the first part contains the next highest value in the array and the second part holds the required additive entity to get the highest value. Print the array where the highest value gets spitted into those two parts.**

**Sample input:** 4 8 6 3 2

**Sample output:** 4 6 2 6 3 2

**10. Write a program to shift every element of an array to circularly right.**

**E.g.- INPUT** : 1 2 3 4 5

**OUTPUT** : 5 1 2 3 4

**11. Initialize a 2D array of 3\*3 matrix.**

**E.g.- 1 2 3**

**4 5 6**

**7 8 9**

**Check if the matrix is symmetric or not.**

**12. Input any number. Find the sum of the digits of the number using a recursive function.**