C++ Arrays Assignments 15 -12-2022

1.	Write a C++ program to separate even and odd numbers of an array of integers. Put all even numbers first, and then odd numbers. **Input:** Enter the size of the array you want 8 Enter the elements of the array 56 67 87 54 35 68 80 76 **Output:** Even numbers of the array are 56 76 80 54 68 Odd numbers of the array are 35 87 67 Hint: use two pointers
2.	Code to find the union of two arrays A, B into C. Input : arrays A , B of sizes m , n Output : array C of maximum size m+n, or depends on the elements in A, B Print A, B, C.
3.	Code to find the intersection of two arrays A, B into C. Input : arrays A , B of sizes m , n Output : array C of maximum size (m, n) or depends on the elements in A, B Print A, B, C.
4.	Let array A can contain duplicate elements. Code to find the unique elements of array A and print them.
5.	Code to insert and element into a sorted array A. Let A size is 25. Give seven sorted numbers as input. Then read another random element e and insert into A at proper position And print contents of A.
6.	Code to find the index such that the sum of left sub array = sum of right sub array for a given array A. Example: A[ ]={ 3, 5, 2, 8, 4, 6 }; Index is 3 because left sub array {3,5,2} sum of element 8 is equal to right sub array {4,6} sum. Element 8 index is 3. Output : 3
7.	Write a C++ code which reads a sequence of positive integers till the user types −1 and stored them in an Array. Then it counts the lengths of the increasing sub sequences, and prints the maximum among them. For example, for input {6, 7, 2, 29, 17, 5, 5, 11, 6, 7, 8, −1} Output should be as : the increasing sub sequences are: {6 7} {2 29} {17} {5 5 11} {6 7 8} Maximum sub sequence length is 3.

8.	Write a program to find the maximum number of times repeated element in the given array. **For example:** If the array elements are2 3 4 2 5 4 2 2 6 7 8 Output: 2 is repeated for 4 times
9.	Write a C++ program to find common elements from three sorted (in non- decreasing order) arrays. **For example:** array1 = 2, 4, 8 array2 = 2, 3, 4, 8, 10, 16 array3 = 4, 8, 14, 40 Output: Common elements from three sorted (in non-decreasing order) arrays: [4, 8]
10.	Write a program to replace every element in an array with the greatest element on its right side. The given array is : 7 5 8 9 6 8 5 7 4 6 After replacement, the modified array is: 9 9 9 8 8 7 7 6 6
11.	Read an array of integers of size N. code to find the "Maximum consecutive numbers present in an array" Print out the maximum count of consecutive numbers that could be scattered in an array. **Example** **Input A[]=** {8, 34, 30, 36, 75, 35, 46, 29} Output: 3 Explanation: The consecutive numbers are ⇒ 34, 35, 36 (A set of 3).
12.	Code to merge two sorted arrays A, B of sizes m , n into another new sorted array C of size m+n. Print A, B, C.