1.Write a program in C# Sharp to count a total number of duplicate elements in an array.  
Test Data :   
Input the number of elements to be stored in the array :3   
Input 3 elements in the array :   
element - 0 : 5   
element - 1 : 1   
element - 2 : 1   
Expected Output :   
Total number of duplicate elements found in the array is : 1

2.Write a program in C# Sharp to print all unique elements in an array.  
Test Data :   
Input the number of elements to be stored in the array :3   
Input 3 elements in the array :   
element - 0 : 1   
element - 1 : 5   
element - 2 : 1   
Expected Output :   
The unique elements found in the array are : 5

3. Write a program in C# Sharp to merge two arrays of same size sorted in ascending order.  
Test Data :   
Input the number of elements to be stored in the first array :3   
Input 3 elements in the array :   
element - 0 : 1   
element - 1 : 2   
element - 2 : 3   
Input the number of elements to be stored in the second array :3   
Input 3 elements in the array:   
element - 0 : 1   
element - 1 : 2   
element - 2 : 3   
Expected Output:   
The merged array in ascending order is :   
1 1 2 2 3 3

4. Write a program in C# Sharp to count the frequency of each element of an array.  
Test Data :   
Input the number of elements to be stored in the array :3   
Input 3 elements in the array :   
element - 0 : 25   
element - 1 : 12   
element - 2 : 43   
Expected Output :   
Frequency of all elements of array :   
25 occurs 1 times   
12 occurs 1 times   
43 occurs 1 times

5. Write a program in C# Sharp to find maximum and minimum element in an array.  
Test Data :   
Input the number of elements to be stored in the array :3   
Input 3 elements in the array :   
element - 0 : 45   
element - 1 : 25   
element - 2 : 21   
Expected Output :   
Maximum element is : 45   
Minimum element is : 21

6. Write a programin C# Sharp to separate odd and even integers in separate arrays.  
Test Data :   
Input the number of elements to be stored in the array :5   
Input 5 elements in the array :   
element - 0 : 25   
element - 1 : 47   
element - 2 : 42   
element - 3 : 56   
element - 4 : 32   
Expected Output:   
The Even elements are:   
42 56 32   
The Odd elements are :   
25 47

7. Write a program in C# Sharp to sort elements of array in ascending order.

// You can research some sorting algorithms here but first try to solve it by yourself. I want to see both, remind me if I forget! :D  
Test Data :   
Input the size of array : 5   
Input 5 elements in the array :   
element - 0 : 2   
element - 1 : 7   
element - 2 : 4   
element - 3 : 5   
element - 4 : 9   
Expected Output :   
Elements of array in sorted ascending order:   
2 4 5 7 9

8. Write a program in C# Sharp to sort elements of the array in descending order.  
Test Data :   
Input the size of array : 3   
Input 3 elements in the array :   
element - 0 : 5   
element - 1 : 9   
element - 2 : 1  
Expected Output :   
Elements of the array in sorted descending order:   
9 5 1

9. Write a program in C# Sharp to insert New value in the array (sorted list).

// Should be sorted after the insertion  
Test Data :   
Input the size of array : 3   
Input 3 elements in the array in ascending order:   
element - 0 : 5   
element - 1 : 7   
element - 2 : 9   
Input the value to be inserted : 8   
Expected Output :   
The exist array list is :   
5 7 9   
After Insert the list is :   
5 7 8 9

10. Write a program in C# Sharp to find the second largest element in an array.  
Test Data :   
Input the size of array : 5   
Input 5 elements in the array :   
element - 0 : 2   
element - 1 : 9   
element - 2 : 1   
element - 3 : 4   
element - 4 : 6   
Expected Output :   
The Second largest element in the array is: 6

**Source and place where you can find more exercises and possible solutions (I dare you to find a solution to all of them by your own):**

<https://www.w3resource.com/csharp-exercises/array/index.php>