1. Write a program in C to count the 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 to print all unique elements in an array.   
Test Data :   
Print all unique elements of an array:  
------------------------------------------  
Input the number of elements to be stored in the array: 4  
Input 4 elements in the array :  
element - 0 : 3  
element - 1 : 2  
element - 2 : 2  
element - 3 : 5  
Expected Output :   
The unique elements found in the array are:  
3 5

3. Write a program in C to merge two arrays of the same size sorted in descending 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 decending order is :   
3 3 2 2 1 1

4. Write a program in C 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 :   
The frequency of all elements of an array :   
25 occurs 1 times   
12 occurs 1 times   
43 occurs 1 times

5. Write a program in C to find the maximum and minimum 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 : 45   
element - 1 : 25   
element - 2 : 21   
Expected Output :   
Maximum element is : 45   
Minimum element is : 21

6. Write a program in C to separate odd and even integers into 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 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

8. Write a program in C to convert a decimal number to a binary number using the function.   
Test Data :   
Input any decimal number : 65

*Expected Output* :

The Binary value is : 1000001

9. Write a program in C to print all perfect numbers in a given range using the function.   
Test Data :   
Input lowest search limit of perfect numbers : 1  
Input lowest search limit of perfect numbers : 100  
Expected Output :

The perfect numbers between 1 to 100 are :

6 28

10. Write a program in C to make such a pattern like a right angle triangle with a number which will repeat a number in a row.

The pattern like :

1

22

333

4444

11. Write a program in C to make such a pattern like a right angle triangle with the number increased by 1.

The pattern like :

1

2 3

4 5 6

7 8 9 10

12. Write a program in C to make a pyramid pattern with numbers increased by 1.

1

2 3

4 5 6

7 8 9 10

13. Write a program in C to print Floyd's Triangle.

1

01

101

0101

10101

14. Write a program in C to find the number and sum of all integers between 100 and 200 which are divisible by 9.   
Expected Output :  
Numbers between 100 and 200, divisible by 9 :   
108 117 126 135 144 153 162 171 180 189 198   
The sum : 1683

15. Write a C program to convert a binary number into a decimal number without using array, function and while loop.   
Test Data :   
Input a binary number :1010101   
Expected Output :  
The Binary Number : 1010101   
The equivalent Decimal Number : 85

16. Write a program in C to convert a decimal number into octal without using an array.   
Test Data :   
Enter a number to convert : 79   
Expected Output :  
The Octal of 79 is 117.

17. Write a C program to convert an octal number to a decimal without using an array.   
Test Data :   
Input an octal number (using digit 0 - 7) :745   
Expected Output :  
The Octal Number : 745   
The equivalent Decimal Number : 485

18. Write a program in C to find the largest element using Dynamic Memory Allocation.   
Test Data :   
Input total number of elements(1 to 100): 5   
  
Number 1: 5   
Number 2: 7   
Number 3: 2   
Number 4: 9   
Number 5: 8  
Expected Output :

The Largest element is : 9.00

19. Write a program in C to sort an array using a pointer.   
Test Data :   
testdata   
*Expected Output* :

Test Data :   
Input the number of elements to store in the array : 5   
Input 5 number of elements in the array :   
element - 1 : 25   
element - 2 : 45   
element - 3 : 89   
element - 4 : 15   
element - 5 : 82   
*Expected Output* :

The elements in the array after sorting :

element - 1 : 15

element - 2 : 25

element - 3 : 45

element - 4 : 82

element - 5 : 89

20. Write a program in C to compute the sum of all elements in an array using pointers.   
Test Data :   
Input the number of elements to store in the array (max 10) : 5   
Input 5 number of elements in the array :   
element - 1 : 2   
element - 2 : 3   
element - 3 : 4   
element - 4 : 5   
element - 5 : 6  
Expected Output :

The sum of array is : 20

21. Write a program in C to count the number of vowels and consonants in a string using a pointer.   
Test Data :   
Input a string: string   
Expected Output :

Number of vowels : 1

Number of constant : 5

22. Write a program in C to compute the sum of all elements in an array using pointers.   
Test Data :   
Input the number of elements to store in the array (max 10) : 5   
Input 5 number of elements in the array :   
element - 1 : 2   
element - 2 : 3   
element - 3 : 4   
element - 4 : 5   
element - 5 : 6  
Expected Output :

The sum of array is : 20

23. Write a program in C to print the elements of an array in reverse order using pointer.   
Test Data :   
Input the number of elements to store in the array (max 15) : 5   
Input 5 number of elements in the array :   
element - 1 : 2   
element - 2 : 3   
element - 3 : 4   
element - 4 : 5   
element - 5 : 6   
Expected Output :

The elements of array in reverse order are :

element - 5 : 6

element - 4 : 5

element - 3 : 4

element - 2 : 3

element - 1 : 2

24. Write a program in C to print a string in reverse using a pointer.   
Test Data :   
Input a string : w3resource   
*Expected Output* :

Pointer : Print a string in reverse order :

------------------------------------------------

Input a string :w3resource

Reverse of the string is : ecruoser3w

25.Write a C program to get the indices of two numbers in a given array of integers. This will enable you to get the sum of two numbers equal to a specific target.   
Expected Output:

Original Array: 4 2 1 5

Target Value: 7

Indices of the two numbers whose sum equal to target value: 7

1 3