C For Loop

**1.**Write a program in C to display the first 10 natural numbers.   
*Expected Output* :  
1 2 3 4 5 6 7 8 9 10

**2.**Write a C program to find the sum of first 10 natural numbers.   
*Expected Output* :  
The first 10 natural number is :  
1 2 3 4 5 6 7 8 9 10  
The Sum is : 55

**3.**Write a program in C to display n terms of natural number and their sum.  
Test Data : 7  
*Expected Output* :  
The first 7 natural number is :  
1 2 3 4 5 6 7  
The Sum of Natural Number upto 7 terms : 28

**4.**Write a program in C to read 10 numbers from keyboard and find their sum and average.   
Test Data :  
Input the 10 numbers :  
Number-1 :2  
...  
Number-10 :2  
*Expected Output* :  
The sum of 10 no is : 55  
The Average is : 5.500000

**5.**Write a program in C to display the cube of the number upto given an integer.   
Test Data :  
Input number of terms : 5  
*Expected Output* :  
Number is : 1 and cube of the 1 is :1  
Number is : 2 and cube of the 2 is :8  
Number is : 3 and cube of the 3 is :27  
Number is : 4 and cube of the 4 is :64  
Number is : 5 and cube of the 5 is :125

**6.**Write a program in C to display the multiplication table of a given integer.   
Test Data :  
Input the number (Table to be calculated) : 15  
*Expected Output* :  
15 X 1 = 15  
...  
...  
15 X 10 = 150

**7.** Write a program in C to display the multipliaction table vertically from 1 to n.   
Test Data :  
Input upto the table number starting from 1 : 8  
*Expected Output* :  
Multiplication table from 1 to 8  
1x1 = 1, 2x1 = 2, 3x1 = 3, 4x1 = 4, 5x1 = 5, 6x1 = 6, 7x1 = 7, 8x1 = 8  
...  
1x10 = 10, 2x10 = 20, 3x10 = 30, 4x10 = 40, 5x10 = 50, 6x10 = 60, 7x10 = 70, 8x10 = 80

**8.**Write a program in C to display the n terms of odd natural number and their sum .   
Test Data  
Input number of terms : 10  
*Expected Output* :  
The odd numbers are :1 3 5 7 9 11 13 15 17 19  
The Sum of odd Natural Number upto 10 terms : 100

**9.**Write a program in C to display the pattern like right angle triangle using an asterisk.

The pattern like :

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**10.** Write a program in C to display the pattern like right angle triangle with a number.

The pattern like :

1

12

123

1234

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

The pattern like :

1

22

333

4444

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

The pattern like :

1

2 3

4 5 6

7 8 9 10

**13.**Write a program in C to make such a pattern like a pyramid with numbers increased by 1.

1

2 3

4 5 6

7 8 9 10

**14.**Write a program in C to make such a pattern like a pyramid with an asterisk.

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**15.**Write a C program to calculate the factorial of a given number.   
Test Data :  
Input the number : 5  
*Expected Output* :  
The Factorial of 5 is: 120

**16.**Write a program in C to display the n terms of even natural number and their sum.   
Test Data :  
Input number of terms : 5  
*Expected Output* :  
The even numbers are :2 4 6 8 10  
The Sum of even Natural Number upto 5 terms : 30

**17.**Write a program in C to make such a pattern like a pyramid with a number which will repeat the number in the same row.

1

2 2

3 3 3

4 4 4 4

**18.**Write a program in C to find the sum of the series [ 1-X^2/2!+X^4/4!- .........].   
Test Data :  
Input the Value of x :2  
Input the number of terms : 5  
*Expected Output* :  
the sum = -0.415873  
Number of terms = 5  
value of x = 2.000000

**19.**Write a program in C to display the n terms of harmonic series and their sum.   
1 + 1/2 + 1/3 + 1/4 + 1/5 ... 1/n terms  
Test Data :  
Input the number of terms : 5  
*Expected Output* :  
1/1 + 1/2 + 1/3 + 1/4 + 1/5 +  
Sum of Series upto 5 terms : 2.283334

**20.**Write a program in C to display the pattern like a pyramid using asterisk and each row contain an odd number of asterisks.

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