

**Assignment II**

1. Write a program in C++ to find the first 10 natural numbers.
2. Write a program in C++ to find the sum of first 10 natural numbers.
3. Write a program in C++ to check whether a number is prime or not.
4. Write a program in C++ to find the factorial of a number.
5. Write a program in C++ to find the last prime number occur before the entered number.
6. Write a program in C++ to find the Greatest Common Divisor (GCD) of two numbers.
7. Write a program in C++ to find the sum of digits of a given number.
8. Write a program in C++ to find the sum of the series 1/1^1 + 1/2^2 + 1/3^3 + ..+ 1/n^n.
9. Write a program in C++ to calculate the sum of the series (1\*1) + (2\*2) + (3\*3) + (4\*4) + (5\*5) + ... + (n\*n).
10. Write a program in C++ to calculate the series (1) + (1+2) + (1+2+3) + (1+2+3+4) + ... + (1+2+3+4+...+n).
11. Write a program in C++ to find the sum of series 1 - X^2/2! + X^4/4!-.... upto nth term.
12. Write a program in C++ to list non-prime numbers from 1 to an upperbound.
13. Write a program in C++ to print a square pattern with # character.
14. Write a program in C++ to display the cube of the number upto given an integer.
15. Write a program in C++ to display the multiplication table vertically from 1 to n.
16. Write a program in C++ to display the n terms of odd natural number and their sum.
17. Write a program in C++ to display the n terms of even natural number and their sum.
18. Write a program in C++ to display the n terms of harmonic series and their sum.
19. Write a program in C++ to display the sum of the series [ 9 + 99 + 999 + 9999 ...].
20. Write a program in C++ to display the sum of the series [ 1+x+x^2/2!+x^3/3!+....].
21. Write a program in C++ to find the sum of the series [ x - x^3 + x^5 + ......].
22. Write a program in C++ to find the sum of the series 1 +11 + 111 + 1111 + .. n terms.
23. Write a program in C++ to display the first n terms of Fibonacci series.
24. Write a program in C++ to find the number and sum of all integer between 100 and 200 which are divisible by 9.
25. Write a program in C++ to find the number and sum of all integer between 100 and 200 which are divisible by 9.
26. Write a program in C++ to display the number in reverse order.
27. Write a program in C++ to find out the sum of an A.P. series.  Sample Output:  
    Input the starting number of the A.P. series: 1  
    Input the number of items for the A.P. series: 8  
    Input the common difference of A.P. series: 5  
    The Sum of the A.P. series are :  
    1 + 6 + 11 + 16 + 21 + 26 + 31 + 36 = 148