Assignment 9

(Functions contd., Recursion)

1. Develop a top down modular program to implement a calculator. The program should request the user to input two numbers and display one of the following as per the desire of the user.

>Addition

>Subtraction

>Multiplication

>Division

>Modulo Division

The system will ask the user to input one of the option. As a result the program should display the result to the user with proper message. Also the program must be able to handle the situation for wrong entry by the user. Lastly, design your program such that it should interactively ask the user to continue with any other operation.

2. Write a recursive function that will find the factorial of a given number.

3. Write a recursive function that will generate and print the first n Fibonacci numbers.

4. Write a recursive function that will compute GCD of two numbers.

GCD(m,n) = m (if n=0)

= GCD(n, m%n) otherwise