SE115 – LAB#5 2014-2015 FALL

Aim: Understanding the functions.

1. Write a function that takes three real numbers as the parameters and returns the maximum of these numbers. The main function of the program will read the numbers from the keyboard, call the function, and print the maximum number.

2. In the same source file, write another function that will find the minimum value of the three real numbers given. The main function of the program will read the numbers, call the function, and print the minimum.

Sample Output for (1) and (2)

```
Enter three real numbers: 4.5 -7.5 3.2
Maximum is 4.5
Minimum is -7.5
```

3. Declare and define a function that accepts the lengths of the two sides of a right angled triangle and calculates and prints the hypotenuse. The main function of the program will read the sides from the user and call the function.

Sample Output:

```
Enter two sides: 3 4
Hypotenuse is 5.0
```

4. Implement a program that reads integers and calculates the factorial results. You will be using the followings in your program:

- **a.** Declare a function "`factorial()`" to calculate the factorial of a given integer. (Think about the prototype. That is, decide the number and the type of arguments the function takes and what the function returns.)
- **b.** Define the function. Regarding the definition of the function, you can either use a loop (iterative function) or a recursion (recursive function) to calculate the factorial result. (No printf/scanf will be used in the factorial function.)
- **c.** Interactively read the numbers until the user enters -1. The main function will read the numbers and call the factorial function consecutively.

Sample Output:

```
Enter a number: 1
1! = 1
Enter a number: 4
4! = 24
Enter a number: 6
6! = 720
Enter a number: 10
0! = 1
Enter a number: -1
Exiting…
```