**East West University**

**Department of Computer Science and Engineering**

**CSE103: Lab-04**

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1. Develop a **function** that takes two integers as parameters and returns the count of numbers that are divisible by 5 and 7 in that range. Call the function from main and print the result.

2. In this problem, you will be developing a simple game. The rules of the game are simple. The user will be asked to input an integer between 1 and 6. Then two dices will be rolled and if both the dices match with the user’s input, user wins and loses otherwise!

**Hint**: Say, user chooses 4. Then you should generate two random numbers from 1 to 6. After that you should check whether the random numbers are equal to 4 or not and declare the result!

3. Take an integer number N from the user and calculate the summation of all natural numbers from 1 to N. You must use **function** to solve this problem.

**Example**: Add (5) returns **1+2+3+4+5 = 15**, Add (3) returns **1+2+3 = 6**

4. Write a **function** that takes the radius of a circle and returns the area of that circle. Write another **function** that takes area as parameter and determines whether the area is greater than 25 or not. If the area is greater than 25 then print "**Greater than 25**” or else “**Less than 25**”. Call both functions from the main.

5. Write a **function** that takes an integer N as parameter. And print **Hello World** N times.

6. Take a number from the keyboard and **determine** if it is **prime** of not. Use **function**. Prime number is a number that can only be divisible by 1 and the number itself.

7. Write a **function** integerPower(base, exponent) that returns the value of . For example, integerPower( 3, 4 ) = 3 \* 3 \* 3 \* 3. Assume that exponent is a positive, nonzero integer, and base is an integer. Function integerPower should use for to control the calculation. Do not use any math library functions.

8. Write program segments that accomplish each of the following: a) Calculate the integer part of the quotient when integer a is divided by integer b. b) Calculate the integer remainder when integer a is divided by integer b. c) Use the program pieces developed in a) and b) to write a **function** that inputs an integer between 1 and 32767 and prints it as a series of digits, with two spaces between each digit. For example, the integer 4562 should be printed as:

4 5 6 2

9. The greatest common divisor (GCD) of two integers is the largest integer that evenly divides each of the two numbers. Write **function** gcd that returns the greatest common divisor of two integers.

## 10. Write a C Program to find the Least Common Multiple (LCM) of two numbers using function.