Programming Fundamentals

Lab 04

Topic: Functions

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Question 1: Write the following function and implement these functions in a sample program.

a) **int add(int, int)**
   // this function will get two numbers as parameters and return their result as sum

> **Sample Output**
> Enter 1st Number= 7
> Enter 2nd Number=5
> Sum = 12

b) **int sub(int, int)**
   // this function will get two numbers as parameters and return their result as subtraction

> **Sample Output**
> Enter 1st Number= 7
> Enter 2nd Number=5
> Result = 2

c) **int mul(int, int)**
   // this function will get two numbers as parameters and return their result as multiplication

> **Sample Output**
> Enter 1st Number= 7
> Enter 2nd Number=5
> Result of Multiplication = 35

d) **float div(int, int)**
   // this function will get two numbers as parameters and return their result as division

> **Sample Output**
> Enter 1st Number= 10
> Enter 2nd Number=5
> Result = 2

Question 2: Write the following function and implement these functions in a sample program.

a) **void table(int)**
   // this function will get a number and print its table 1 to 10

   Enter a Number= 5
   ```
   5 x 1 = 5
   5 x 2 = 10
   5 x 3 = 15
   5 x 4 = 20
   5 x 5 = 25
   5 x 6 = 30
   5 x 7 = 35
   5 x 8 = 40
   5 x 9 = 45
   5 x 10 = 50
   ```

b) **float Diameter(float)**
   // function will get the radius of circle and return its Diameter
   // Diameter =*2r*

Sample Output   Enter radius of circle= 10   Diameter = 20

c) **float Circumference(float)**
   // function will get the radius of circle and return its Circumference
   // Circumference =*2πr*

Sample Output   Enter radius of circle= 30   Enter value of Pi = 3.14   Circumference= 188.4

d) **float Area(float)**
   // function will get the radius of circle and return its Area
   $$A = \pi r^2$$

Sample Output   Enter radius of circle= 3   Enter value of Pi = 3.14   Circumference= 28.26

Question 3: Write a C++ program that takes three integer numbers from user. You have to make a function named findGreater(int, int, int) and find the greater number among them.

> **Sample Output**
> Enter 1st Number= 3
> Enter 2nd Number = -99
> Enter 3rd Number = 89
> The greater number is= 89

Question 4: Write a C++ program that takes an integer number from user. You have to make a function named fact(int) and find the factorial of that number.

> **Sample Output**
> Enter Number= 5
> Factorial of Number=120

Question 5: Write a C++ program that takes an integer number between 1 to 7 from user. You have to make a function named days(int) and find the name of the week day with respect to the number entered by user. Assume that 1st day is Monday and last day is Sunday.

> **Sample Output**
> Enter Number= 3
> The day is = Wednesday