Programming Fundamentals

Lecture # 21

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Problem 1

- Write a program to calculate overtime pay of 10 employees. Overtime is paid at rate of 12 per hour for every hour worked above 40 hours. Assume that employees do not work for fractional part of an hour

Problem 2

- Write a program to find the factorial value of any number entered through the keyboard

Problem 3

- Two numbers are entered through the keyboard. Write a program to find value of one number raised to the power of another

Problem 4

- Write a program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zero entered

Problem 5

- Write a program to find the range of a set of numbers. Range is the difference between the smallest and biggest number in the list

Problem 6

- Write a program which asks user to enter a number. It then shows whether number is prime or not.

Problem 7

- Write a program to find the sum of positive numbers. If a user enters a negative number, the loop ends. The negative number entered is not added to sum.

Problem 8

- Write a program to input a number from user and print the number in reverse order.

Problem 9

- Write a program to input a number from user and print the sum of its digits.

Problem 10

- Write a program in C++ to find the Greatest Common Divisor (GCD) of two numbers.

Problem 11

- Write a C++ program that asks the user to enter positive integers in order to process count, maximum, minimum, and average or terminate the process with -1.

Problem 12

- Write a program in C++ to find the number and sum of all integers between 100 and 200 which are divisible by 9.

Problem 13

- Write a program that reads integers from user and then prints the sum of even and odd integers.

Problem 14

5.5 *(Summing Integers)* Write a program that uses a for statement to sum a sequence of integers. Assume that the first integer read specifies the number of values remaining to be entered. Your program should read only one value per input statement. A typical input sequence might be

        5 100 200 300 400 500

where the 5 indicates that the subsequent 5 values are to be summed.

Problem 15

5.6   *(Averaging Integers)* Write a program that uses a for statement to calculate the average of several integers. Assume the last value read is the sentinel 9999. For example, the sequence 10 8 11 7 9 9999 indicates that the program should calculate the average of all the values preceding 9999.