**QUESTION#1**

Write a program containing two functions named:

1. ‘IterativeSum( )’ that iteratively computes and returns the sum of range of natural numbers (like 10 to 15).
2. ‘RecursiveSum( )’ that recursively computes and returns the sum of range of natural numbers (like 10 to 15).

Take range as input from user and pass them as arguments to this function.

**QUESTION#2**

Write a program containing two functions named:

1. ‘IterativeDecToBin( )’ that iteratively computes and displays the binary equivalent of entered decimal number being passed as argument to this function.
2. ‘RecursiveDecToBin( )’ that recursively computes and displays the binary equivalent of entered decimal number being passed as argument to this function.

The program must continue to take input and displaying the result until the user quits. Use appropriate parameters and return type.

**QUESTION#3**

Write a program containing a function named ‘ArraySum’ that computes and returns the sum of all elements in an array, where the array and its size are given as parameters. Use appropriate parameters and return type.

**QUESTION#4**

Use a single-subscripted array passed to a function to solve the following problem. Read in 20 numbers, each of which is between 10 and 100, inclusive. As each number is read, print it only if it’s not a duplicate of a number already read. Provide for the “worst case” in which all 20 numbers are different.

**QUESTION#5**

N numbers are entered from the keyboard into an array. The number to be searched is entered through the keyboard by the user. Write a program to find if the number to be searched is present in the array and if it is present, display the number of times it appears in the array along with the position.

**QUESTION#6**

Write a program to print the reverse of an entered array. Your program must contain only one array.

**QUESTION#7**

Write a program to copy the content of one array into another in reverse order.

**QUESTION#8**

Write a program to delete a given number from array.

**QUESTION#9**

Take two strings as input. Compare the two strings character by character and display the result whether both are equal, or first string is greater than the second or the first string is less than the second string.

* Enter a string: hello

Enter another string: world

String1 is less than string2

* Enter a string:object

Enter another string:class

String1 is greater than string2

* Enter a string:object

Enter another string:object

Both strings are equal

**Homework:**

1. Compute recursively the count of the occurrences of 4 as a digit with an exception that a 4 with another 4 immediately to its left counts double, so 4414 yields 4.
2. Find recursively the gcd (greatest common divisor) of 2 numbers passed as arguments.