ICS 103 – Computer Programming in C
Summer Semester 2008 (073)
Lab # 10
(How to Use 1-D array with Functions)

Objective:
Learn how to use one-dimensional **arrays with function.**

Discussion:
The C language has limitation as a cost to achieve some extent of efficiency:
➢ A function return type cannot be an array.
➢ An array parameter can only be a reference parameter.
➢ An array cannot be the target of an assignment.

The following problem will be discussed in detail on black board:

Write a function to find maximum, minimum and average of all elements stored in an array.
Write main to call this function and display results.

Exercises:

Program # 1:

Write an **int** function LessThan() with three formal parameters: an **int** array a, an **int** n which is the number of elements in the array, and an **int** value v. Function LessThan() returns the number of elements in list a[0], a[1], …, a[n-1] that are less than v.

Program # 2:

Write a function called IsSorted() that takes an integer array and the size of array as parameters. Function IsSorted() returns TRUE if the array is in ascending sorted order, otherwise it returns FALSE.

Program # 3:

Write a main program that reads an integer array **a** of size **8** and passes it to two functions called **large** and **small**. The function **large** finds the largest number in the array and returns it to main program, and **small** finds the smallest number in the array and returns it to main program. The main program should print the large and small numbers found by the functions.