

Lab work

Pointers

1. Write a function named *swap* that will take addresses of two integer type variables and exchange the values in those variables. Write *main()* function so that it calls the *swap()* function properly and shows appropriate output.
2. Write a program that creates an array of integers of size 5. Take 5 values from keyboard and put the values in the array. Then compute the sum of the 5 values and display it. [Access the array elements using pointer].
3. Write a function named *cal_average* that takes three arguments:
 - a. Address of an integer array
 - b. Size of the array
 - c. Address of a variable where the average of the array elements will be stored.

The function will compute the average of the elements and store them in the variable pointed by the last argument. [Note that the last argument needs to be a pointer variable of floating point type.]

4. Write a function named *cal_area_perimeter* that takes three arguments:
 - a. Radius of a circle.
 - b. Address of a variable where the area of the circle will be stored.
 - c. Address of a variable where the perimeter of the circle will be stored.

The function will compute the area and perimeter of the circle whose radius is passed to the first argument, and store them in the two variables pointed by the second and third arguments.

5. Write a function named *search_number* that takes three arguments:
 - a. An integer array
 - b. Its length
 - c. An integer number to search in the array.

The function will search the whole array for the integer value passed to its third argument and will return the number of times it appears in the array.
[Use pointer to receive the address of the array]