

Assignment 1
Deadline : Tuesday 8/2/2022

- 1) Write a c++ function that takes three input parameters: a one dimensional array, its size and an integer. Your function should check whether the integer is in the array or not. It should return true if the number is in the array and false if it is not in the array. Then write a main program that reads in 5 integers and another number to search for and prints a message saying whether the number is in the array or not. Sample usage of your program should be as follows:

Test

Enter 5 integers: 10 13 2 17 23

Enter an integer to search for: 17

17 is in the array of numbers

- 2) Write a c++ function that accepts **a square matrix** of size 3x3 and its size as parameters. Your function should return true if the matrix is a [magic square matrix](#) or false if it is not. A [magic square matrix](#) is a square matrix (number of rows equal to the number of columns) such that the sum of each row, the sum of each column, and the sum of each diagonal are equal. Then write a main function that reads in the matrix and prints whether the matrix is magic or not. Sample usage is:

Test

Enter a 3x3 matrix of integers: 2 7 6

9 5 1

4 3 8

The matrix is a magic matrix with a magic constant = 15