

## Homework 4 — Arrays in C++

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### Section A — One-Dimensional Arrays

1.

Declare an array of size 7 and read all elements. Print the sum and average.

2.

Read 10 integers, then print how many are:

- Positive
- Negative
- Zero

3.

Write a program that finds the minimum value in an array of 8 numbers.

4.

Ask the user for 5 integers, then print them in reverse order.

5.

Input 12 temperatures, and count how many are above 30°C.

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### Section B — Searching, Counting, and Processing Arrays

#### 6. Linear Search

Read an array of 10 integers, then ask the user for a value and print whether it is found and at which index.

#### 7. Frequency Counter

Read 10 numbers and count how many times the number 5 appears.

#### 8. Replace Negative Values

Read 10 integers, and replace every negative number with 0, then print the result.

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## **Section C — Two-Dimensional Arrays**

### **9. Sum of a 2×2 Matrix**

**Read values for a 2×2 matrix and print the total sum of all elements.**

### **10. Row Averages (3×3 Matrix)**

**Read a 3×3 matrix and compute the average of each row.**