Assignment 4

Arrays

1-   . Write a program that prints an identity matrix using for loop, in other words takes a value n from the user and shows the identity table of size n * n.

2-   Write a program in C# Sharp to find the sum of all elements of the array.

3-   Write a program in C# Sharp to merge two arrays of the same size sorted in ascending order.

4-   Write a program in C# Sharp to count the frequency of each element of an array.

5-   Write a program in C# Sharp to find maximum and minimum element in an array

7- Write a program in C# Sharp to find the second largest element in an array.

8-. Consider an Array of Integer values with size N, having values as   in
this Example

7	0	0	0	5	6	7	5	0	7	5	3

write a program to find the longest distance between Two equal cells. In this example. The distance is measured by the number Of cells- for example, the distance between the first and the fourth cell is 2 (cell 2 and cell 3).

In the example above, the longest distance is between the first 7 and the
10th 7, with a distance of 8 cells, i.e. the number of cells between the 1st
And the 10th 7s.

9- Given a list of space separated words, reverse the order of
the words.

Input: this is a test   Output: test a is this

Input: all your base   Output: base your all

Input: Word   Output: Word

10- Write a program to create two multidimensional arrays of the
same size. Accept value from the user and store them in the first
array. Now copy all the elements of the first array onto the
second array and print the second array.

11- Write a Program to Print One Dimensional Array in Reverse
Order

General

1-Write a program that calculates the simple interest given the principal amount, rate of interest, and time. The formula for simple interest is

Interest = (principal * rate * time) /100 2- Write a program that calculates the Body Mass Index (BMI) given a person's weight in kilograms and height in meters. The formula for BMI is

BMI = (Weight)/(Height*Height)

3- Write a program that uses the ternary operator to check if the temperature is too hot, too cold, or just good. Assign the result in a variable then display the result. Assume that below 10 degrees is "Just Cold", above 30 degrees is

"Just Hot", and anything else is "Just Good"
4- Write a program that takes the date from the user and displays it in various formats using string interpolation.

Note:

Today's date : 20 , 11 , 2001

Today's date : 20 / 11 / 2001

Today's date : 20 – 11 – 2001 5-What is the output of the following C# code?

```csharp
DateTime date = new DateTime(2024, 6, 14);

Console.WriteLine($"The event is on {date:MM/dd/yyyy}");
```

a)   The event is on 14/06/2024

b)   The event is on 2024-06-14

c)   The event is on 06/14/2024

d)   The event is on June 14, 2024