TASK BASED ON ARRAYS

1. The students are organizing their book collection and wants to find the number of science fiction books in their collection.
Program that takes an array representing book genres (0 for science fiction, 1 for mystery, etc.) and prints the number of science fiction books.
(This array consists of only 0s & 1s).

2. You are task is to write a program to determine if an array is monotonic. An array is considered monotonic if it is either entirely non-increasing or entirely non-decreasing.

    For example:
    Example 1:
    Input: [1, 2, 2, 3]
    Output: true
    Explanation: The array is non-decreasing

    Example 2:
    Input: [6, 5, 4, 4]
    Output: true
    Explanation: The array is non-increasing.

    Example 3:
    Input: [1, 3, 2]
    Output: false
    Explanation: The array is neither non-increasing nor non-decreasing.

3. Write a program to find the pair of numbers in an array that when added together produces the highest sum, and then print those two numbers along with their sum.

    Test case 1:
    int[] arr = {10, 20, 30, 5, 50, 40};
    Pair with the highest sum: 50 and 40
    Sum: 90

    Test case 2:
    int[] arr = {-10, -20, -30, -5, -50, -40};
    Pair with the highest sum: -5 and -10
    Sum: -15

4. You are building a music playlist application, and you want to implement a feature that allows users to shuffle their playlists. To shuffle the playlist, you decide to rotate the songs to the left by a given number of positions. Each song in the playlist is represented by an element in an array, and you need to rotate the songs to the left by a specified number of positions.

    For example:
    Consider an array representing a playlist: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
    Rotate the playlist to the left by 3 positions.
    After rotation, the playlist becomes: [4, 5, 6, 7, 8, 9, 10, 1, 2, 3]