Assignments for lists and arrays

1. Intermediate Difficulty (5 Points)
Problem:

1. Create two lists:
    - list1 containing the integers from 1 to 10.
    - list2 containing the cubes of integers from 1 to 10.
2. Combine the two lists into a single list where:
    - All elements of list1 come first, followed by all elements of list2.
3. Count how many elements in the combined list are greater than 50.

Example Output:

```
Combined List: [1, 2, 3, ..., 10, 1, 8, 27, ..., 1000]
Count of Elements > 50: 11
```

2. Hard Difficulty (10 Points)
Problem:

1. Ask the user to input two lists of size 5, where each list contains integers.
2. Write a program to:
    - Add the corresponding elements of the two lists and store the result in a new list.
    - Multiply the corresponding elements of the two lists and store the result in another new list.
3. Print all three lists (original lists and the results).

Example Input/Output:

```
Enter 5 integers for list1 (space-separated): 1 2 3 4 5
Enter 5 integers for list2 (space-separated): 6 7 8 9 10

List1: [1, 2, 3, 4, 5]
List2: [6, 7, 8, 9, 10]
Sum List: [7, 9, 11, 13, 15]
Product List: [6, 14, 24, 36, 50]
```

3. Intermediate Difficulty (5 Points)
Problem:

1. Create a 1D array of size 8, where each element is input by the user.
2. Write a program to:
    - Find and print all the even numbers in the array.
    - Find and print the sum of all odd numbers in the array.

Example Input/Output:

```
Enter 8 integers: 12 17 8 15 22 7 9 31

Even Numbers: [12, 8, 22]
Sum of Odd Numbers: 79
```

4. Hard Difficulty (10 Points)
Problem:

1. Create two arrays (array1 and array2) of size 6, with each element entered by the user.
2. Write a program to:
    - Create a new array that contains the difference between corresponding elements of array1 and array2.
    - Count how many elements in the difference array are negative.
3. Print array1, array2, the difference array, and the count of negative elements.

Example Input/Output:

```
Enter 6 integers for array1: 10 15 20 25 30 35
Enter 6 integers for array2: 12 10 25 20 40 30

Array1: [10, 15, 20, 25, 30, 35]
Array2: [12, 10, 25, 20, 40, 30]
Difference Array: [-2, 5, -5, 5, -10, 5]
Count of Negative Elements: 3
```