Assignment 2 Results for Aryan Jigneshbhai Bhagat (he/him/his)

⚠ Correct answers are no longer available.

Score for this quiz: 10 out of 10
Submitted Feb 20 at 2:18pm
This attempt took 25 minutes.

⠿

Question 1

2 / 2 pts

What is the order (Big-O) of the operation that efficiently determines if an item exists in a sorted list?

○ O(1)

○ O(n^2)

○ O(n)

⦿ O(log n)

⠿

Question 2

4 / 4 pts

Product of Array Elements:

Write a complete program in C++ that calculates the product of all elements in a one-dimensional array of integers. Paste your program here.

Requirements:

1. The program should first ask the user to enter the number of elements, n, in the array.
2. Then, the program should allow the user to input n integer values, **one per line.**
3. The program should compute the product of the entered array elements and display the result.

Input Format:

- The user first enters an integer n, which represents the number of elements in the array.
- Then, the user enters n integer values, one per line.

Output Format:

- The program should output the product of the n entered array elements.

Your Answer:

```cpp
#include <iostream>
using namespace std;

int main()
{
    int n;
    cin >> n;
    int arr[n]; // can also use vector (dynamic array)
    long res = 1; // (assuming product of all elements do not exceed long data type size)
    cout << "Enter Elements (Integer) : ";
    for (int i = 0; i < n; i++)
    {
        cin >> arr[i];
        res *= arr[i];
    }
    cout<< "Elements in the array are : ";
    for (int i =0;i<n;++i){
        if(i==n-1){

            cout<< arr[i] << endl;
            break;
        }
        cout << arr[i] << ", ";
    }

    cout << "Multiplication of all elements in the array is : " << res;

    return 0;
}
```

⁘

Question 3
2 / 2 pts

Consider our "Product of Array Elements" above. What is the order (Big-O) of calculating the product of array elements once you are given a one-dimensional array of n integer numbers?

○ O(log n)

◉ O(n)

○ O(n^2)

○ None of the cases are correct.

○ O(n log n)

⋮⋮

Question 4

2 / 2 pts

Let $F(n)=2n^2+\log n$ and $G(n)= 2n+ n \log n$. Select the correct answer.

○ F(n)=O(G(n))

○ G(n)=θ(F(n))

◉ G(n)=O(F(n))

○ None of the cases are correct.

○ F(n)=θ(G(n))

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