## **Contribution Technique**

## 2. Contribution Technique:

Problem: The contribution technique is used to solve problems where you need to calculate the contribution of each element to a result.

Approach: Break down the problem into smaller parts, calculating the contribution of each element to the final answer.

## Scenarios:

- 1. \*\*Subarray Sum Contribution:\*\* In problems where you need to find the sum of all subarrays, the contribution technique helps compute the contribution of each element to the sum.
- 2. \*\*Counting Subarrays with a Property:\*\* If you need to count subarrays that satisfy certain conditions, the contribution technique can be applied.
- 3. \*\*Prefix and Suffix Contribution:\*\* For problems involving prefix and suffix sums, the contribution technique can be used to calculate how each element contributes to the final result.

```
Java Code:
public class Solution {
  public int totalSum(int[] arr) {
    int n = arr.length;
    int sum = 0;
    for (int i = 0; i < n; i++) {
        sum += arr[i] * (i + 1) * (n - i);
    }
    return sum;
}</pre>
```

}

Explanation: Each element contributes to the sum based on its position in the array.