Plus Minus

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Given an array of integers, calculate which fraction of its elements are *positive*, which fraction of its elements are *negative*, and which fraction of its elements are *zeroes*, respectively. Print the decimal value of each fraction on a new line.

Note: This challenge introduces precision problems. The test cases are scaled to six decimal places, though answers with absolute error of up to 10^{-4} are acceptable.

Input Format

The first line contains an integer, N, denoting the size of the array.
The second line contains N space-separated integers describing an array of numbers $(a_0, a_1, a_2, \ldots, a_{n-1})$.

Output Format

You must print the following 3 lines:

1. A decimal representing of the fraction of *positive* numbers in the array compared to its size.

2. A decimal representing of the fraction of *negative* numbers in the array compared to its size.

3. A decimal representing of the fraction of *zeroes* in the array compared to its size.

Sample Input

```
6
-4 3 -9 0 4 1
```

Sample Output

```
0.500000
0.333333
0.166667
```

Explanation

There are 3 positive numbers, 2 negative numbers, and 1 zero in the array.
The respective fractions of positive numbers, negative numbers and zeroes are $\frac{3}{6} = 0.500000$, $\frac{2}{6} = 0.333333$ and $\frac{1}{6} = 0.166667$, respectively.

Submissions:348975

Max Score:10
Difficulty: Easy

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More

Current Buffer (saved locally, editable)

C++

```cpp
#include <bits/stdc++.h>

using namespace std;

void plusMinus(vector <int> arr) {
    // Complete this function
}

int main() {
    int n;
    cin >> n;
    vector<int> arr(n);
    for(int arr_i = 0; arr_i < n; arr_i++){
       cin >> arr[arr_i];
    }
    plusMinus(arr);
    return 0;
}
```

Line: 1 Col: 1

Upload Code as File Test against custom input Run Code Submit Code