



Dashboard > Algorithms > Warmup > Plus Minus

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Points: 499.57 Rank: 84579

Plus Minus

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Problem

Submissions

Leaderboard

Discussions

Editorial

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 $(a_0, a_1, a_2, \dots, a_{n-1})$.

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.

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Max Score: 10

Difficulty: Easy

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Current Buffer (saved locally, editable)

C++14



```
1 #include <iostream>
```

```
2 #include <vector>
3 #include <iomanip>
4
5 using namespace std;
6
7 int main()
8 {
9     vector<double> vec;
10    double temp=0.0, posi=0.0,nega=0.0, Z=0.0;
11    int N;
12    cin>>N;
13    for(int i=0; i<N; ++i)
14    {
15        cin>>temp;
16        vec.push_back(temp);
17    }
18    cout.setf(ios::fixed);
19    cout.setf(ios::showpoint);
20    cout.precision(6);
21    for(int i=0; i<vec.size(); ++i)
22    {
23        if(vec[i]>0)
24            posi++;
25        else if (vec[i]<0)
26            nega++;
27        else
28            Z++;
29    }
30    cout<<posi/vec.size()<<endl <<nega/vec.size()<<endl
31        <<Z/vec.size()<<endl;
32    return 0;
33 }
```

Line: 1 Col: 1

 Upload Code as File ☐ Test against custom input

Run Code

Submit Code