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# Plus Minus

by vatsalchanana

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

**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:**258958

**Max Score:**10
**Difficulty:** Easy

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**Current Buffer** (saved locally, editable) C++14

```cpp
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
#include <iomanip>
using namespace std;


int main() {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT */

    vector<int> a;
    int len;
    float pos=0.0,neg=0.0,neutral=0.0 ;

    cin >> len;
    for(int i=0;i<len;i++)
        {
            int input;
            cin >> input;
            a.push_back(input);
    }
    for(int i=0;i<len;i++)
        {
            if(a[i]==0)
                neutral++;
            else if(a[i]<0)
                neg++;
            else
                pos++;

    }
    //out << pos<<endl;
    cout <<fixed<<setprecision(6)<<pos/len<<endl;
    cout <<fixed<<setprecision(6)<<neg/len<<endl;
    cout <<fixed<<setprecision(6)<<neutral/len<<endl;
    return 0;
}

```

Line: 37 Col: 43

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

## Congrats, you solved this challenge!

- ✔ Test Case #0
- ✔ Test Case #1
- ✔ Test Case #2
- ✔ Test Case #3
- ✔ Test Case #4
- ✔ Test Case #5
- ✔ Test Case #6
- ✔ Test Case #7
- ✔ Test Case #8
- ✔ Test Case #9
- ✔ Test Case #10

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