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## Plus Minus

 by [vatsalchanana](#)

Problem

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

### Output Format

You must print the following **3** lines:

1. A decimal representing of the fraction of *positive* numbers in the array.
2. A decimal representing of the fraction of *negative* numbers in the array.
3. A decimal representing of the fraction of *zeroes* in the array.

### 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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Submissions: [236181](#)  
Max Score: 10  
Difficulty: Easy

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Current Buffer (saved locally, editable)  

C++  

```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main(){
10     int n;
11     cin >> n;
12     int positive = 0, negative = 0, zeroes = 0, total = 0, number;
13     for (int i = 0; i < n; i++) {
14         cin >> number;
15         if (number > 0) positive++;
16         else if (number < 0) negative++;
17         else zeroes++;
18         total++;
19     }
20
21     std::printf("%.6f\n", (float) positive / total);
22     std::printf("%.6f\n", (float) negative / total);
23     std::printf("%.6f\n", (float) zeroes / total);
24
25     return 0;
26 }
27
```

Line: 1 Col: 1

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