

# Plus Minus

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.