

Given an array of integers, calculate the fractions of its elements that are *positive*, *negative*, and are *zeros*. 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.

For example, given the array  $arr = [1, 1, 0, -1, -1]$  there are **5** elements, two positive, two negative and one zero. Their ratios would be  $\frac{2}{5} = 0.400000$ ,  $\frac{2}{5} = 0.400000$  and  $\frac{1}{5} = 0.200000$ . It should be printed as

0.400000  
0.400000  
0.200000

Function Description

Complete the *plusMinus* function in the editor below. It should print out the ratio of positive, negative and zero items in the array, each on a separate line rounded to six decimals.

plusMinus has the following parameter(s):

- arr*: an array of integers

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  $arr(arr[0], arr[1], arr[2], \dots, arr[n - 1])$ .

Constraints

$$0 < n \leq 100$$
$$-100 \leq arr[i] \leq 100$$

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 *zeros* 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 proportions of occurrence are positive:  $\frac{3}{6} = 0.500000$ , negative:  $\frac{2}{6} = 0.333333$  and zeros:  $\frac{1}{6} = 0.166667$ .