

Plus Minus



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: $\frac{1}{6} = 0.166667$.