Challenge # 03 (Plus-Minus)

Given an array of integers, calculate the ratios of its elements that are positive, negative, and zero. Print the decimal value of each fraction on a new line with 6 places after the decimal.
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.

Example

arr=[-1,-1,0,1,1]
There are 5 elements, two positive, two negative and one zero. Their ratios are 2/5 = 0.400000, 2/5 = 0.400000 and 1/5=0.200000. Results are printed as:
0.400000
0.400000
0.200000

Function Description

Name: plusMinus has the following parameter(s):
Parameter(s): int arr[n]: an array of integers
Result: Print the ratios of positive, negative and zero values in the array. Each value should be printed on a separate line with 6 digits after the decimal. The function should not return a value.

Input Format

The first line contains an integer, ***n***, the size of the array.
The second line contains ***n*** space-separated integers that describe ***arr[n]***.

Constraints

$0 \le n \le 100$
$-100 \le arr[i] \le 100$

Output Format

Print the following lines, each to 6 decimals:
proportion of positive values
proportion of negative values
proportion of zeros

Sample Input

arr = [-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: , negative: and zeros: .

Given By:

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