

Problem

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Plus Minus

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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 ***n* = 5** elements, two positive, two negative and one zero. Their ratios are $\frac{2}{5} = 0.400000$, $\frac{2}{5} = 0.400000$ and $\frac{1}{5} = 0.200000$. Results are printed as:

```
0.400000
0.400000
0.200000
```

Function Description

Complete the plusMinus function in the editor below.

plusMinus has the following parameter(s):

- int arr[n]: an array of integers

Print

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

$0 < n \leq 100$

$-100 \leq arr[i] \leq 100$

Output Format

Print the following **3** lines, each to **6** decimals:

- proportion of positive values
- proportion of negative values
- proportion of zeros

Sample Input

STDIN	Function
6	arr[] size n = 6
-4 3 -9 0 4 1	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: $\frac{3}{6} = 0.500000$, negative: $\frac{2}{6} = 0.333333$ and zeros: $\frac{1}{6} = 0.166667$.

Change Theme

Language

Python 3

```
1  #!/bin/python3
2
3  import math
4  import os
5  import random
6  import re
7  import sys
8
9  #
10 # Complete the 'plusMinus' function below.
11 #
12 # The function accepts INTEGER_ARRAY arr as parameter.
13 #
14
15 def plusMinus(arr):
16     c1,c2,c3=0,0,0
17     a=len(arr)
18     for i in range(a):
19         if(arr[i]>0):
20             c1+=1
21         if(arr[i]<0):
22             c2+=1
23         if(arr[i]==0):
24             c3+=1
25     print("%.6f"%(c1/a))
26     print("%.6f"%(c2/a))
27     print("%.6f"%(c3/a))
28     return
29 if __name__ == '__main__':
30     n = int(input().strip())
31
32     arr = list(map(int, input().split()))
33
34     plusMinus(arr)
35
```

Line: 35 Col: 1

Upload Code as File

Test against custom input

Run Code

Submit Code

Congratulations

You solved this challenge. Would you like to challenge your friends?

Test case 0

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6

Compiler Message

Success

Input (stdin)

Download

```
1  6
2  -4 3 -9 0 4 1
```

Expected Output

Download

```
1  0.500000
2  0.333333
3  0.166667
```