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:

1. proportion of positive values
2. proportion of negative values
3. 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

```python
#!/bin/python3

import math
import os
import random
import re
import sys

#
# Complete the 'plusMinus' function below.
#
# The function accepts INTEGER_ARRAY arr as parameter.
#

def plusMinus(arr):
    # Write your code here
    counts = {'positive':0, 'negative':0, 'zeroes': 0}
    for ele in arr:
        if ele >  0: counts['positive'] += 1
        if ele <  0: counts['negative'] += 1
        if ele == 0: counts['zeroes'] += 1

    # positive ratio
    print(counts['positive']/len(arr))

    # negative ratio
    print(counts['negative']/len(arr))

    # zeroes
    print(counts['zeroes']/len(arr))
```

Line: 49 Col: 5

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Congratulations

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

Test case 0

Test case 1

Test case 2

Compiler Message

Success

Hidden Test Case