Fancy Hotel - A

Problem Description

There is a hotel with n floors and m rooms on each floor. All the rooms are occupied by a single male or female. Output the percentage of males and females living in the hotel.

Input format

First line contains the integers n and m.

n lines follow and each line contains m integers representing each of the m rooms on that floor

The number representing each room can be 0, 1 or -1 representing male, female or empty respectively.

Output format

Output two space separated decimals representing the **percentage** of males and females in the building respectively. Decimals should be correct to 5 decimal places.

Constraints

1 <= n 1 <= m n*m <= 1e5

Sample input 1

Sample output 1

50.00000 50.00000

Sample Input 2

1 1 1

Sample Output 2

0.00000 100.00000

Sample Input 3

6 1

Sample Output 3

66.66667 33.33333

Sample input 4

Sample Output 4

42.85714 28.57143