

# Fancy Hotel - B

## 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 on each floor 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  $n$  lines, each line containing two space separated decimals representing the **percentage** of males and females in the building respectively. Answers should be correct to 5 decimal places.

## Constraints

$1 \leq n$   
 $1 \leq m$   
 $n*m \leq 1e5$

## Sample input 1

```
5 4
1 0 0 0
0 1 1 0
1 0 1 1
1 0 0 1
0 1 1 0
```

## Sample output 1

```
75.00000 25.00000
50.00000 50.00000
25.00000 75.00000
50.00000 50.00000
50.00000 50.00000
```

## Sample Input 2

1 1  
1

## Sample Output 2

0.00000 100.00000

## Sample Input 3

6 1  
1  
0  
0  
1  
0  
0

## Sample Output 3

0.00000 100.00000  
100.00000 0.00000  
100.00000 0.00000  
0.00000 100.00000  
100.00000 0.00000  
100.00000 0.00000

## Sample input 4

7 1  
1  
0  
0  
1  
0  
-1  
-1

## Sample Output 4

0.00000 100.00000  
100.00000 0.00000  
100.00000 0.00000  
0.00000 100.00000  
100.00000 0.00000  
0.00000 100.00000  
0.00000 100.00000

## Sample Input 5

```
4 3
0 1 0
1 1 1
0 0 -1
-1 -1 -1
```

## Sample output 5

```
66.66667 33.33333
0.00000 100.00000
66.66667 0.00000
0.00000 0.00000
```