

F1: Eas	y	5 pt				
F2: Med	dium	15 pt				
F3: Har	d	55 pt				
Micro Kitche	Micro Kitchens					
G1: Eas	sy	5 pt				
G2: Me	dium	25 pt				
G3: Har	rd	50 pt				
ZigZag						
H1: Eas	sy	10 pt				
H2: Me	dium	20 pt				
H3: Har	rd	55 pt				
Types						
I1: Easy	′	20 pt				
I2: Med	ium	50 pt				
I3: Hard	I	80 pt				
Wanikani						
J1: Eas	y	10 pt				
J2: Med	dium	35 pt				
J3: Har	d	45 pt				
Re-enact						
K1: Eas	у	15 pt				
K2: Me	dium	40 pt				

# Problem G1: Micro Kitchens - Easy

5 points

**Problem** 

My Submissions

You are a space planner for a new start-up and need to find the ideal spot in the office to put the micro kitchen.

You must make it as easy as possible to get to by picking the spot that minimizes the sum of distances from that spot to all employees in the office. The distance to an employee is the number of moves on the shortest path moving left, right, up, or down (but not diagonally) by one cell at a time.

For now, the office only contains the startup's employees, who work on a single office floor. They don't mind sharing a spot with the micro kitchen and they can walk through each others' desk areas. What are the X and Y coordinates of the best spot to put the micro kitchen, given that (0,0) is in the top-left, with X coordinates increasing from left to right, and Y coordinates increasing from top to bottom? It's guaranteed that a unique best spot exists.

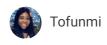
### Input

Your input specifies the layout of the office as follows:

- The first line contains 3 numbers: W, H, and N, representing the width, height and number of floors in the office. In this version of this problem, it's guaranteed that there is only a single floor (N=1).
- What follows is N sets of lines, with the ith set describing the ith floor:
  - $\circ$  Each set consists of H lines that are W characters wide.
  - Sets are separated by an empty line.

# FACEBOOK Coding Competitions

FB Hack > 2021	
<b>EMEA Coding</b>	
Challenge 2021	



	F1: Easy	5 pt
	F2: Medium	15 pt
	F3: Hard	55 pt
Micı	o Kitchens	
0	G1: Easy	5 pt
	G2: Medium	25 pt
	G3: Hard	50 pt
ZigZ	'ag	
	H1: Easy	10 pt
	H2: Medium	20 pt
	H3: Hard	55 pt
Туре	es	
	I1: Easy	20 pt
	I2: Medium	50 pt
	I3: Hard	80 pt
Wan	iikani	
	J1: Easy	10 pt
	J2: Medium	35 pt

J3: Hard

K1: Easy

K2: Medium

Re-enact

45 pt

15 pt

40 pt

top of the set) represents the contents at position (j,k) of the ith floor. Each cell will be one of the following:

- "." An empty space
- "o" An employee's desk area

## **Output**

Your output should be a file containing a single tuple with the (X,Y) coordinates of the optimal spot to put the micro kitchen in.

#### **Constraints**

$$0 \le X < W$$
  
 $0 \le Y < H$   
 $1 \le W \le 1000$   
 $1 \le H \le 1000$   
 $N = 1$ 

## **Explanation of Sample**

There are 7 employees in the office, the spot that minimizes the sum of the distances that employees have to walk to get to the micro kitchen is **(6, 5)** 

## Sample Input

## Sample Output

10 1	10 1	L					
		•	•	•	•	•	•
		•	•	•	•	•	•
		•	•	•	•	•	•
			0	•	•	•	•
			•	0	•	•	0
			0	•	0	•	•
			•	•	•	•	•
	. (		•	•	•	•	•
				•	•	•	0
				•		•	

(6, 5)