


# Assignment 3 - 2D-Array

Overview

Problems

Submit

Discussion

IN PROGRESS

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ATTEMPT RATE

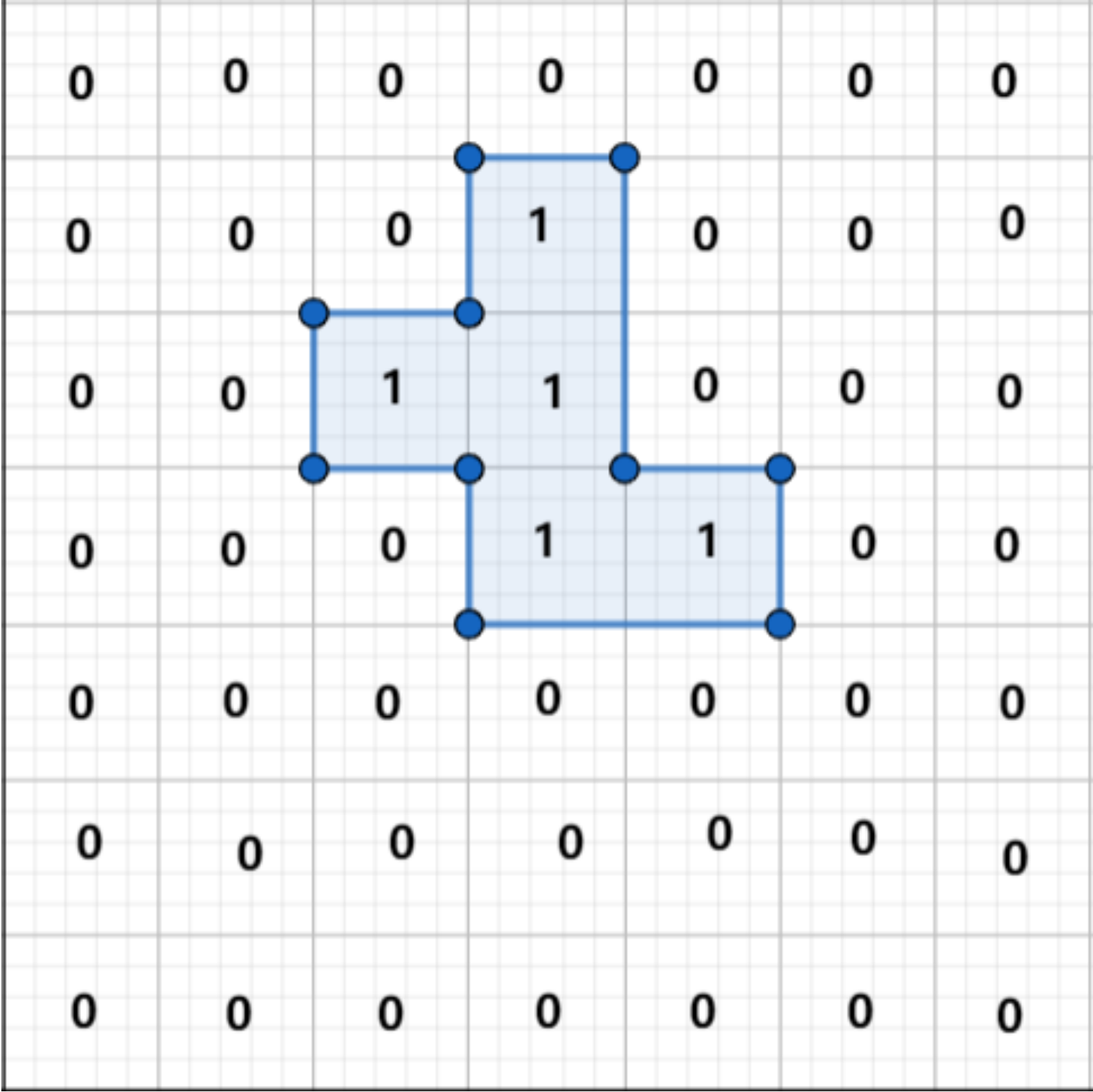
0/500  
GRADE

## Perimeter of Black Grid Cells

### Description

Given an  $n \times n$  grid map, the grid cells can be painted in one of two colors, black and white. The color is represented by two values, 0 is white and 1 is black.

For example :



We assume that the grid cell is a square with side length 1. You are required to figure out the perimeter of the black areas.

### Input

The first row indicates the size of the grid map i.e.,  $n$ . The next  $n$  rows specify the color of the grid cells with two values, 0 and 1. 0 means white color and 1 black. Each row has  $n$  columns, resulting in an  $n \times n$  grid.

For all test cases, we guarantee that  $0 < n \leq 100$ .

### Output

Print the sum of all black areas' perimeter.

### Sample

Input #1

Copy

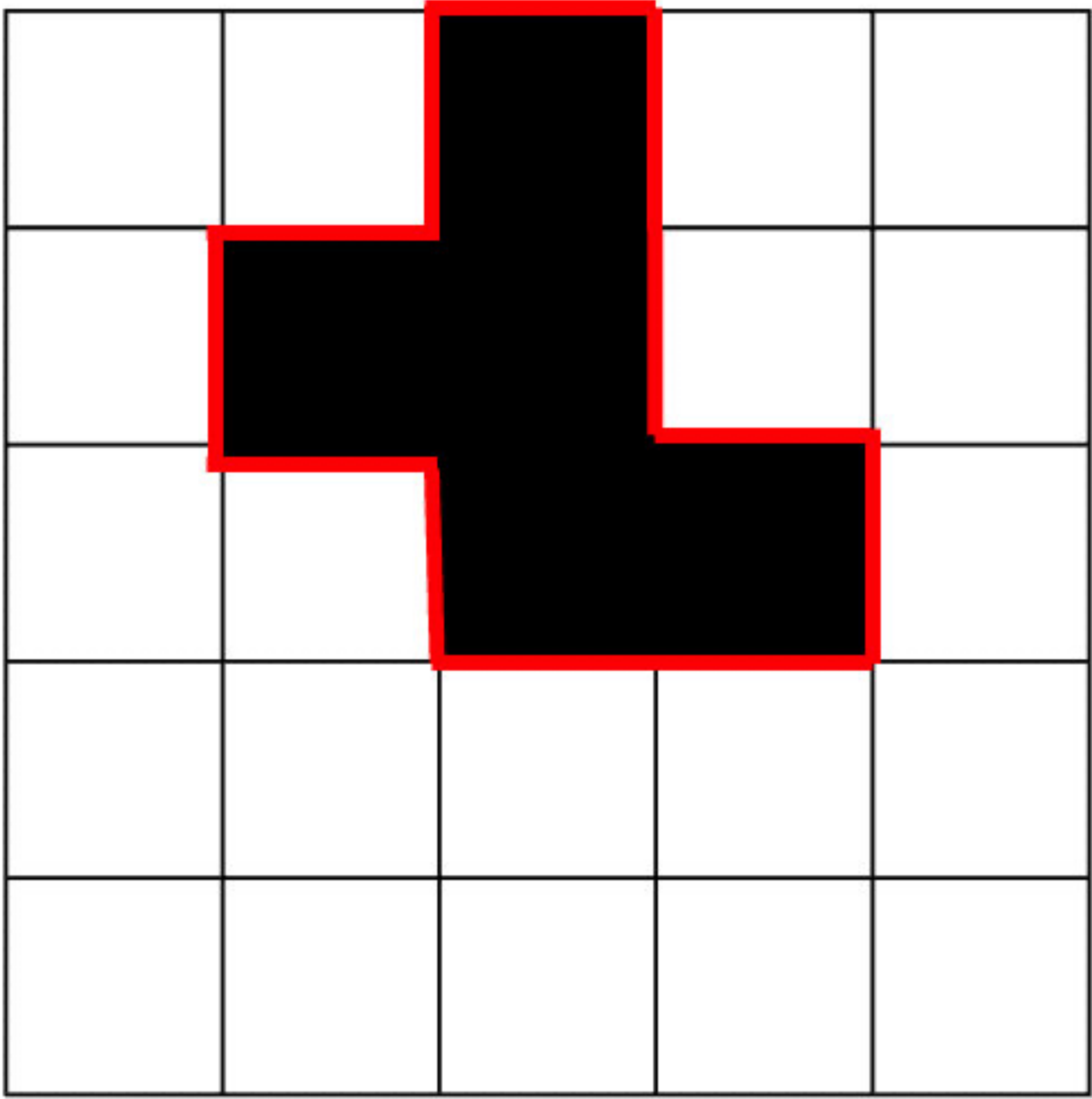
5  
0 0 1 0 0  
0 1 1 0 0  
0 0 1 1 0  
0 0 0 0 0  
0 0 0 0 0

Output #1

Copy

12

Explain:



Input #2

Copy

1  
1

Output #2

Copy

4

Input #3

Copy

2  
0 0  
0 0

Output #3

Copy

0

- #A - # Operation for Matrix
- #B - Perimeter of Black Grid Cells
- #C - Calculating Area
- #D - Fill Matrix
- #E - Five Wins

#### Problem Information

Problem Type	Java Only
Time Limit	2000 ms
Memory Limit	128 MB
IO Mode	Stream IO
Difficulty	Unknown

Sources

#### 服务

反馈  
使用指南  
API开发文档  
版本规划

#### 外部链接

南科大计算机系  
演化机器智能实验室  
JCoder早期版本  
开发团队



#### 指尖之触，大厦之筑

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需要网站  
误：  
网站密钥