


# Assignment 3 - 2D-Array

 Overview

 Problems

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 Discussion

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## Five Wins

### Description

In the game "Five Wins", one wins when there are five pieces in a row horizontally, vertically or diagonally. Given a board of  $n \times n$ , where 0 means no piece at that position and 1 means piece, output the coordinates of all winnable points.

### Input

$n$ , and a  $n \times n$  matrix consists of 0 and 1, it is guaranteed that there's no five pieces in a row horizontally, vertically or diagonally.

### Output

Output the coordinates of all winnable points in the sequence that rows are prioritized in order from smallest to largest while columns in order from smallest to largest. If there's no such points, print -1.

Note: Row and column start at 1.

### Sample

Input #1

Copy

```
8
0 0 0 0 0 0 0 0
0 1 0 0 0 0 0 0
0 0 1 0 0 0 0 0
0 0 0 1 0 0 0 0
0 1 1 1 1 0 0 0
0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0
```

Output #1

Copy

```
1 1
5 1
5 6
6 6
```

Input #2

Copy

```
8
0 0 0 0 1 0 0 0
0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 1
1 0 0 0 0 0 1 0
0 0 0 0 1 0 0 0
1 0 0 1 0 0 0 1
0 0 1 0 0 0 0 0
1 1 0 0 0 0 0 0
```

Output #2

Copy

```
4 6
```

Input #3






Copy

```
10
1 1 1 0 0 0 0 0 1 0
0 0 1 0 0 1 0 0 0 0
1 1 1 0 0 1 0 1 1 0
1 1 0 1 0 0 1 1 0 0
0 0 1 0 0 1 0 0 0 0
1 0 1 0 0 0 0 0 0 1
0 0 0 0 1 0 0 0 1 1
0 1 1 0 1 0 1 0 1 1
0 0 1 0 0 1 0 1 1 0
1 0 0 0 1 1 1 0 1 1
```



Output #3

Copy

```
4 3
6 4
6 9
7 3
7 4
9 10
10 8
```

- #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	 2010 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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