

# 769. Largest Plus Sign

## Difficulty : Medium

<https://leetcode.com/problems/largest-plus-sign>

You are given an integer  $n$ . You have an  $n \times n$  binary grid `grid` with all values initially 1's except for some indices given in the array `mines`. The  $i^{\text{th}}$  element of the array `mines` is defined as `mines[i] = [xi, yi]` where `grid[xi][yi] == 0`.

Return the order of the largest **axis-aligned plus sign** of 1's contained in `grid`. If there is none, return 0.

An **axis-aligned plus sign** of 1's of order  $k$  has some center `grid[r][c] == 1` along with four arms of length  $k - 1$  going up, down, left, and right, and made of 1's. Note that there could be 0's or 1's beyond the arms of the plus sign, only the relevant area of the plus sign is checked for 1's.

### Example 1:

1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
1	1	0	1	1

**Input:**  $n = 5$ , `mines = [[4,2]]`

**Output:** 2

**Explanation:** In the above grid, the largest plus sign can only be of order 2. One of them is shown.

### Example 2:

0
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**Input:**  $n = 1$ , `mines = [[0,0]]`

**Output:** 0

**Explanation:** There is no plus sign, so return 0.

### Constraints:

- $1 \leq n \leq 500$
- $1 \leq \text{mines.length} \leq 5000$
- $0 \leq x_i, y_i < n$
- All the pairs  $(x_i, y_i)$  are **unique**.