

1975. Maximum Matrix Sum

Medium 67 4 Add to List Share

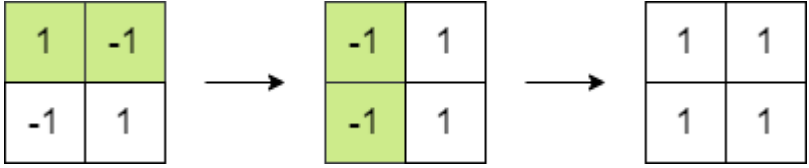
You are given an  $n \times n$  integer `matrix`. You can do the following operation **any** number of times:

- Choose any two **adjacent** elements of `matrix` and **multiply** each of them by  $-1$ .

Two elements are considered **adjacent** if and only if they share a **border**.

Your goal is to **maximize** the summation of the matrix's elements. Return *the **maximum** sum of the matrix's elements using the operation mentioned above.*

Example 1:



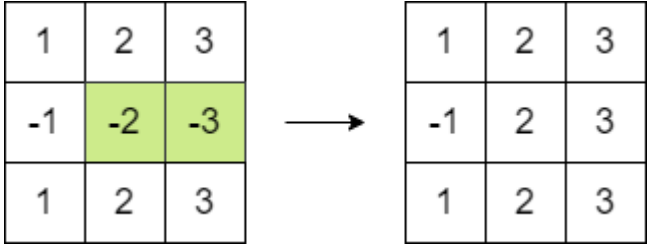
Input: matrix = [[1,-1],[-1,1]]

Output: 4

Explanation: We can follow the following steps to reach sum equals 4:

- Multiply the 2 elements in the first row by -1.
- Multiply the 2 elements in the first column by -1.

Example 2:



Input: matrix = [[1,2,3],[-1,-2,-3],[1,2,3]]

Output: 16

Explanation: We can follow the following step to reach sum equals 16:

- Multiply the 2 last elements in the second row by -1.

Constraints:

- $n == matrix.length == matrix[i].length$
- $2 \leq n \leq 250$
- $-10^5 \leq matrix[i][j] \leq 10^5$

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Seen this question in a real interview before? Yes No

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Show Hint 1

Show Hint 2

```
1 class Solution {
2     public long maxMatrixSum(int[][] matrix) {
3
4     }
5 }
```

⋮