일루미네이션

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5547번: 일루미네이션

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https://www.acmicpc.net/problem/5547

1. DFS

```
import sys
sys.setrecursionlimit(10**6)


def sol():
    w, h = map(int, sys.stdin.readline().split())
    matrix = []
    for i in range(h):
        matrix.append(list(map(int, sys.stdin.readline().split())))

    around = {
        0: [(-1, 0), (-1, 1), (0, -1), (0, 1), (1, 0), (1, 1)],
        1: [(-1, -1), (-1, 0), (0, -1), (0, 1), (1, -1), (1, 0)]
    }

    is_outside = [[False for _ in range(w)] for _ in range(h)]
    visited = [[False for _ in range(w)] for _ in range(h)]

    def search(x, y):
        for dx, dy in around[x % 2]:
            if x + dx < 0 or x + dx > h - 1 or y + dy < 0 or y + dy > w - 1:
                continue
```

```
            if matrix[x + dx][y + dy] == 0 and not visited[x + dx][y + dy]:
                is_outside[x + dx][y + dy] = True
                visited[x + dx][y + dy] = True
                search(x + dx, y + dy)
        return

    for i in [0, h - 1]:
        for j in range(w):
            if matrix[i][j] == 0 and not visited[i][j]:
                is_outside[i][j] = True
                visited[i][j] = True
                search(i, j)

    for j in [0, w - 1]:
        for i in range(h):
            if matrix[i][j] == 0 and not visited[i][j]:
                is_outside[i][j] = True
                is_outside[i][j] = True
                visited[i][j] = True
                search(i, j)

    count = 0
    for i in range(h):
        for j in range(w):
            if matrix[i][j] == 1:
                count += 6
                for dx, dy in around[i % 2]:
                    if i + dx < 0 or i + dx > h - 1 or j + dy < 0 or j + dy > w - 1:
                        continue
                    if matrix[i + dx][j + dy] == 1 or not is_outside[i + dx][j + dy]:
                        count -= 1
    print(count)

sol()
```