Given a grid where each entry is only 0 or 1, find the number of corner rectangles.

A *corner rectangle* is 4 distinct 1s on the grid that form an axis-aligned rectangle. Note that only the corners need to have the value 1. Also, all four 1s used must be distinct.

**Example 1:**

**Input:** grid =

[[1, 0, 0, 1, 0],

[0, 0, 1, 0, 1],

[0, 0, 0, 1, 0],

[1, 0, 1, 0, 1]]

**Output:** 1

**Explanation:** There is only one corner rectangle, with corners grid[1][2], grid[1][4], grid[3][2], grid[3][4].

**Example 2:**

**Input:** grid =

[[1, 1, 1],

[1, 1, 1],

[1, 1, 1]]

**Output:** 9

**Explanation:** There are four 2x2 rectangles, four 2x3 and 3x2 rectangles, and one 3x3 rectangle.

**Example 3:**

**Input:** grid =

[[1, 1, 1, 1]]

**Output:** 0

**Explanation:** Rectangles must have four distinct corners.

**Note:**

1. The number of rows and columns of grid will each be in the range [1, 200].
2. Each grid[i][j] will be either 0 or 1.
3. The number of 1s in the grid will be at most 6000.