

883. Projection Area of 3D Shapes

Description

You are given an `n x n` `grid` where we place some `1 x 1 x 1` cubes that are axis-aligned with the `x`, `y`, and `z` axes.

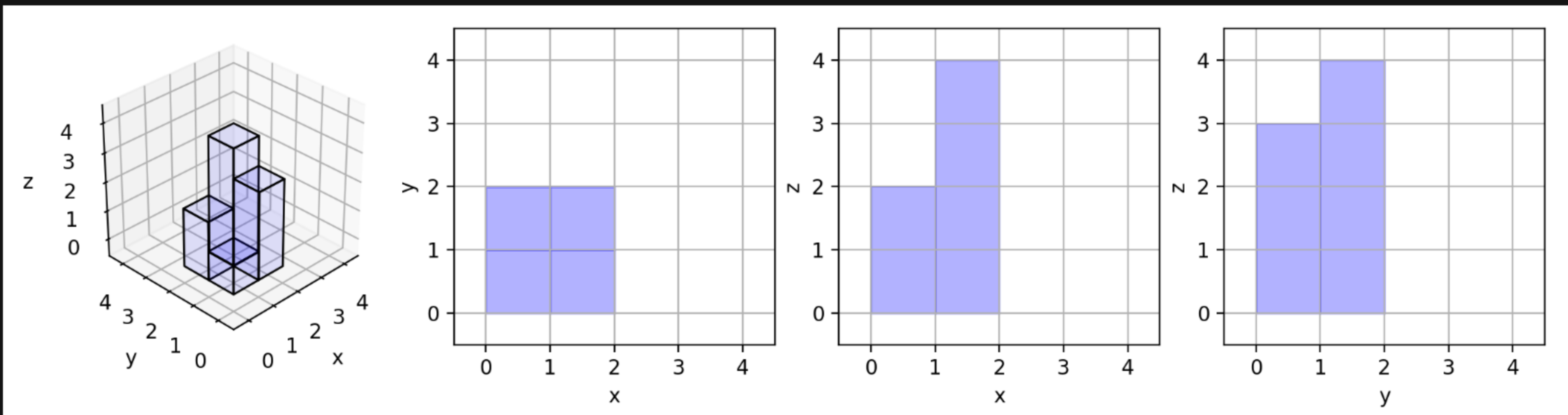
Each value `v = grid[i][j]` represents a tower of `v` cubes placed on top of the cell `(i, j)`.

We view the projection of these cubes onto the `xy`, `yz`, and `zx` planes.

A **projection** is like a shadow, that maps our **3-dimensional** figure to a **2-dimensional** plane. We are viewing the "shadow" when looking at the cubes from the top, the front, and the side.

Return *the total area of all three projections*.

Example 1:



Input: `grid = [[1,2],[3,4]]`

Output: 17

Explanation: Here are the three projections ("shadows") of the shape made with each axis-aligned plane.

Example 2:

Input: `grid = [[2]]`

Output: 5

Example 3:

Input: `grid = [[1,0],[0,2]]`

Output: 8

Constraints:

- `n == grid.length == grid[i].length`
- `1 <= n <= 50`
- `0 <= grid[i][j] <= 50`

