2125. Number of Laser Beams in a Bank

Description

Anti-theft security devices are activated inside a bank. You are given a **0-indexed** binary string array `bank` representing the floor plan of the bank, which is an `m x n` 2D matrix. `bank[i]` represents the `i th` row, consisting of `'0'` s and `'1'` s. `'0'` means the cell is empty, while `'1'` means the cell has a security device.

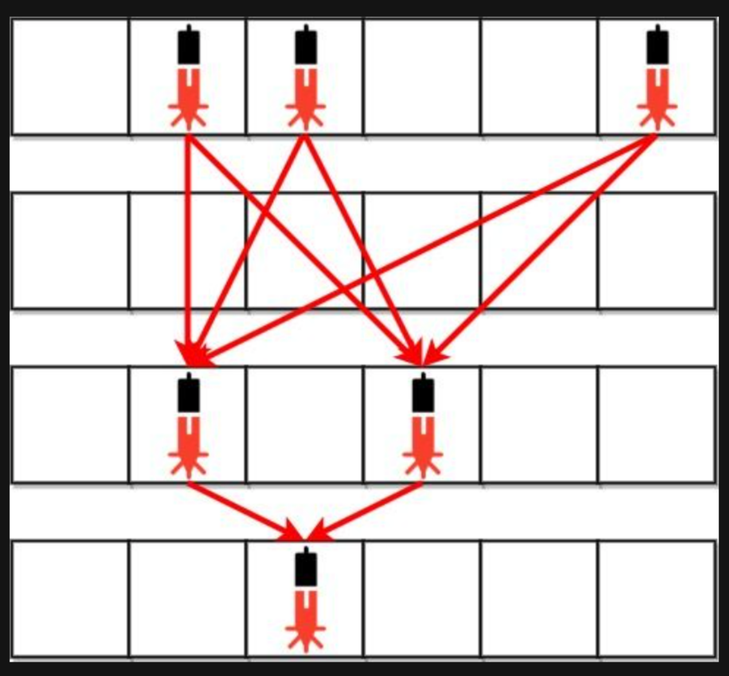
There is **one** laser beam between any **two** security devices **if both** conditions are met:

- The two devices are located on two **different rows**: `r 1` and `r 2`, where `r 1 < r 2`.
- For **each** row `i` where `r 1 < i < r 2`, there are **no security devices** in the `i th` row.

Laser beams are independent, i.e., one beam does not interfere nor join with another.

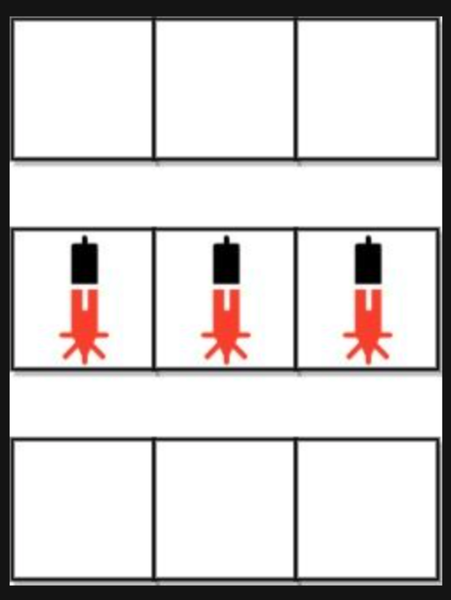
Return *the total number of laser beams in the bank*.

Example 1:



```
Input: bank = ["011001","000000","010100","001000"]
Output: 8
Explanation: Between each of the following device pairs, there is one beam. In total, there are 8 beams:
 * bank[0][1] -- bank[2][1]
 * bank[0][1] -- bank[2][3]
 * bank[0][2] -- bank[2][1]
 * bank[0][2] -- bank[2][3]
 * bank[0][5] -- bank[2][1]
 * bank[0][5] -- bank[2][3]
 * bank[2][1] -- bank[3][2]
 * bank[2][3] -- bank[3][2]
Note that there is no beam between any device on the 0 th row with any on the 3 rd row.
This is because the 2 nd row contains security devices, which breaks the second condition.
```

Example 2:



```
Input: bank = ["000","111","000"]
Output: 0
Explanation: There does not exist two devices located on two different rows.
```

Constraints:

- `m == bank.length`
- `n == bank[i].length`
- `1 <= m, n <= 500`
- `bank[i][j]` is either `'0'` or `'1'`.