

3070. Count Submatrices with Top-Left Element and Sum Less Than k

Description

You are given a **0-indexed** integer matrix `grid` and an integer `k` .

Return *the **number of submatrices** that contain the top-left element of the `grid` , and have a sum less than or equal to `k` .*

Example 1:

7	6	3
6	6	1

7	6	3
6	6	1

7	6	3
6	6	1

7	6	3
6	6	1

Input: `grid = [[7,6,3],[6,6,1]]`, `k = 18`
Output: 4
Explanation: There are only 4 submatrices, shown in the image above, that contain the top-left element of `grid`, and have a sum less than or equal to 18.

Example 2:

7	2	9
1	5	0
2	6	6

7	2	9
1	5	0
2	6	6

7	2	9
1	5	0
2	6	6

7	2	9
1	5	0
2	6	6

7	2	9
1	5	0
2	6	6

7	2	9
1	5	0
2	6	6

Input: `grid = [[7,2,9],[1,5,0],[2,6,6]]`, `k = 20`
Output: 6
Explanation: There are only 6 submatrices, shown in the image above, that contain the top-left element of `grid`, and have a sum less than or equal to 20.

Constraints:

- `m == grid.length`
- `n == grid[i].length`
- `1 <= n, m <= 1000`
- `0 <= grid[i][j] <= 1000`
- `1 <= k <= 109`

