D. Cubes

time limit per test: 5 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

One day Petya got a set of wooden cubes as a present from his mom. Petya immediately built a whole city from these cubes.

The base of the city is an $n \times n$ square, divided into unit squares. The square's sides are parallel to the coordinate axes, the square's opposite corners have coordinates $(0, 0)$ and (n, n). On each of the unit squares Petya built a tower of wooden cubes. The side of a wooden cube also has a unit length.

After that Petya went an infinitely large distance away from his masterpiece and looked at it in the direction of vector $v = (v_x, v_y, 0)$. Petya wonders, how many distinct cubes are visible from this position. Help him, find this number.

Each cube includes the border. We think that a cube is visible if there is a ray emanating from some point p, belonging to the cube, in the direction of vector $-v$, that doesn't contain any points, belonging to other cubes.

Input

The first line contains three integers n, v_x and v_y ($1 \le n \le 10^3$, $|v_x|, |v_y| \le |10^4|$, $|v_x| + |v_y| > 0$).

Next n lines contain n integers each: the j-th integer in the i-th line a_{ij} ($0 \le a_{ij} \le 10^9$, $1 \le i, j \le n$) represents the height of the cube tower that stands on the unit square with opposite corners at points $(i - 1, j - 1)$ and (i, j).

Output

Print a single integer — the number of visible cubes.

Please, do not use the `%lld` specifier to read or write 64-bit integers in C++. It is preferred to use the `cin`, `cout` streams or the `%I64d` specifier.

Examples

input
5 -1 2 5 0 0 0 1 0 0 0 0 2 0 0 0 1 2 0 0 0 0 2 2 2 2 2 3

output
20

input
5 1 -2 5 0 0 0 1 0 0 0 0 2 0 0 0 1 2 0 0 0 0 2 2 2 2 2 3

output
15