Problem D. Ball

Input file:	standard input
Output file:	standard output
Time limit:	4 seconds
Memory limit:	512 megabytes

Give a chessboard of $M * M$, with N point on it. You should calculate how many solutions there ar to select 3 points to make the median distance between the distance between the 3 points is a prime number?

the distance between $(x1, y1)$ and $(x2, y2)$ is $|x1 - x2| + |y1 - y2|$

Input

Each test contains multiple test cases. The first line contains the number of test cases $T(1 \le T \le 10)$. Description of the test cases follows.

The first line of each test case contains two integers N, M

The next N lines each line contains two integers x_i, y_i

It's guaranteed there are no $i, j(i \ne j)$ satisfies both $x_i = x_j$ and $y_i = y_j$

$1 \le N \le 2000, 1 \le M \le 10^5, 1 \le x_i, y_i \le M$

Output

For each test case, print one integer — the answer to the problem.

Example

standard input	standard output
2 3 3 1 1 2 2 3 3 3 3 1 1 2 1 3 2	1 1