

# Howard The Saviour

Howard is now an astronaut. After a successful journey to the space station, he is now headed towards Mars this time for yet another interesting task. But this task of his will save the humanity. Some alien pirates have placed bombs on a very large rectangular grid. Some of the bombs are Master bombs. Master bombs have at least one bomb on their left hand side, right hand side, above and below their position.

As soon as Howard reaches Mars he notes down the coordinates of the bombs that have been planted. Now he has to count the Master bombs that have been placed on Mars.

Given position of all the bombs help Howard to count the number of Master Bombs.

## Input

First line contains  $t$ , the number of test cases.

The next line contains  $n$ , the number of bombs in the grid.

Next  $n$  lines contain the coordinates of the bombs  $(x_i, y_i)$ .

## Output

Output the number of Master bombs.

### Constraints

$$1 \leq t \leq 10$$

$$1 \leq n \leq 500$$

$$0 \leq x_i, y_i \leq 200$$

## Example

**Input:**

```
2
5
1 1
0 1
1 0
6 1
1 9
8
```

1 1  
4 2  
3 1  
1 2  
0 2  
0 1  
1 0  
1 3

**Output:**

1  
2