# Minesweeper Generator



*Everybody remembers the old mines game. Now it is time to create your own.*

You will be given an integer **n** for the **size** of the mines field with **square** shape and another one for the number of bombs that you have to place in the field. On the next **n** lines, you will receive the **position for each bomb**. Your task is to **create the game field** placing the **bombs** at the correct positions and mark them with "**\***", and **calculate the numbers** in each cell of the field. Each **cell** represents a **number** of all **bombs** directly near it (**up, down, left, right and the 4 diagonals**).



### Input

* On the first line, you are given the integer **n** – the size of the **square** matrix.
* On the second line – the **number** of the **bombs**.
* The **next n lines** holds the position of each **bomb**.

### Output

* Print the matrix you've created.

### Constraints

* The size of the **square** matrix will be between **[2…15].**

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 44(0, 3)(1, 1)(2, 2)(3, 0) | 1 1 2 \*1 \* 3 22 3 \* 1\* 2 1 1 |
| 53(1, 1)(2, 4)(4, 1) | 1 1 1 0 01 \* 1 1 11 1 1 1 \*1 1 1 1 11 \* 1 0 0 |