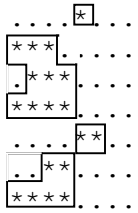
2. Blob Top

Program Name: BlobTop.java Input File: blobtop.dat

James is studying different shapes in a plane. For this particular study, he refers to the shapes as "blobs" because they are irregularly shaped solid polygons. He represents his blobs in a rectangular grid as a collection of one or more contiguous asterisks (*). Contiguous means that the asterisks must be adjacent either horizontally or vertically. Characters in the grid that are not part of a blob are represented by periods (.). In the diagram below, there are 4 blobs.



You are to write a program that, will determine the location of the uppermost, leftmost character of a blob given the coordinates of a given character in the grid. The uppermost, leftmost character of the largest blob in the example above is row 2, column 1 or `2 1`.

Input

The first line of input will contain a single integer `n` that indicates the number of data sets to follow. For each data set:

- the first line will contain three integers in the form `r c s` which meet the following criteria:
  - `r` ≥ 3 is the number of rows in the grid
  - `c` ≥ 3 is the number of columns in the grid
  - `s` > 1 is the number of test cases for that grid
- the next `r` lines will contain the grid.
- the next `s` lines will each contain an ordered pair `x y`, 1 ≤ `x` ≤ `r` and 1 ≤ `y` ≤ `c`, which is the location of a character in the grid.

Output

For each test case, you will print the coordinates of the upper, leftmost character of the blob in the form `j k` where 1 ≤ `j` ≤ `r` and 1 ≤ `k` ≤ `c`. If the test case falls on a square that is not part of a blob, print `NOT A BLOB`,

Example Input File

```
2
7 8 2
....*...
***.....
.***....
****....
....**..
..**....
..**....
4 1
5 3
4 8 3
......**
***.****
......**
***.***.
2 3
4 5
2 8
```

2. Blob Top (cont.)

Example Output to Screen

```
2 1
NOT A BLOB
2 1
1 7
1 7
```