MWC '15 #4 P3: Salt

Time limit: 0.1s **Memory limit:** 256M
Java 8: 0.5s
Python: 0.5s

After failing his accounting, physics and engineering tests all in one day, **aurpine** has decided to give you a problem! The problem is as follows.

There are N grains of salt, labelled 1 to N. The n^{th} grain is located at the coordinate (X_n, Y_n). Two grains won't occupy the same coordinate (because that's crazy!).

You are to answer Q queries. There are two types of queries.

- `1 x y` – if there is a piece of salt at (x, y) output `salty`, otherwise output `bland`.
- `2 X x` – output the number of pieces of salt with an x-coordinate of x.
- `2 Y y` – output the number of pieces of salt with a y-coordinate of y.

Input Specification

Input will initiate with two space separated integers N and Q on a single line.

N lines follow with two space separated integers, X_n and Y_n, the coordinate of the n^{th} grain of salt.

Q lines follow, in the queries form explained above.

Note: fast input may be required.

Constraints

Subtask 1 [10%]

$1 \leq N, Q \leq 100$

$1 \leq X_n, Y_n \leq 10^3$

Subtask 2 [30%]

$1 \leq N, Q \leq 10\,000$

$1 \leq X_n, Y_n \leq 10^3$

Subtask 3 [60%]

$1 \leq N, Q \leq 10\,000$

$1 \leq X_n, Y_n \leq 10^9$

Output Specification

Q lines, one for each query.

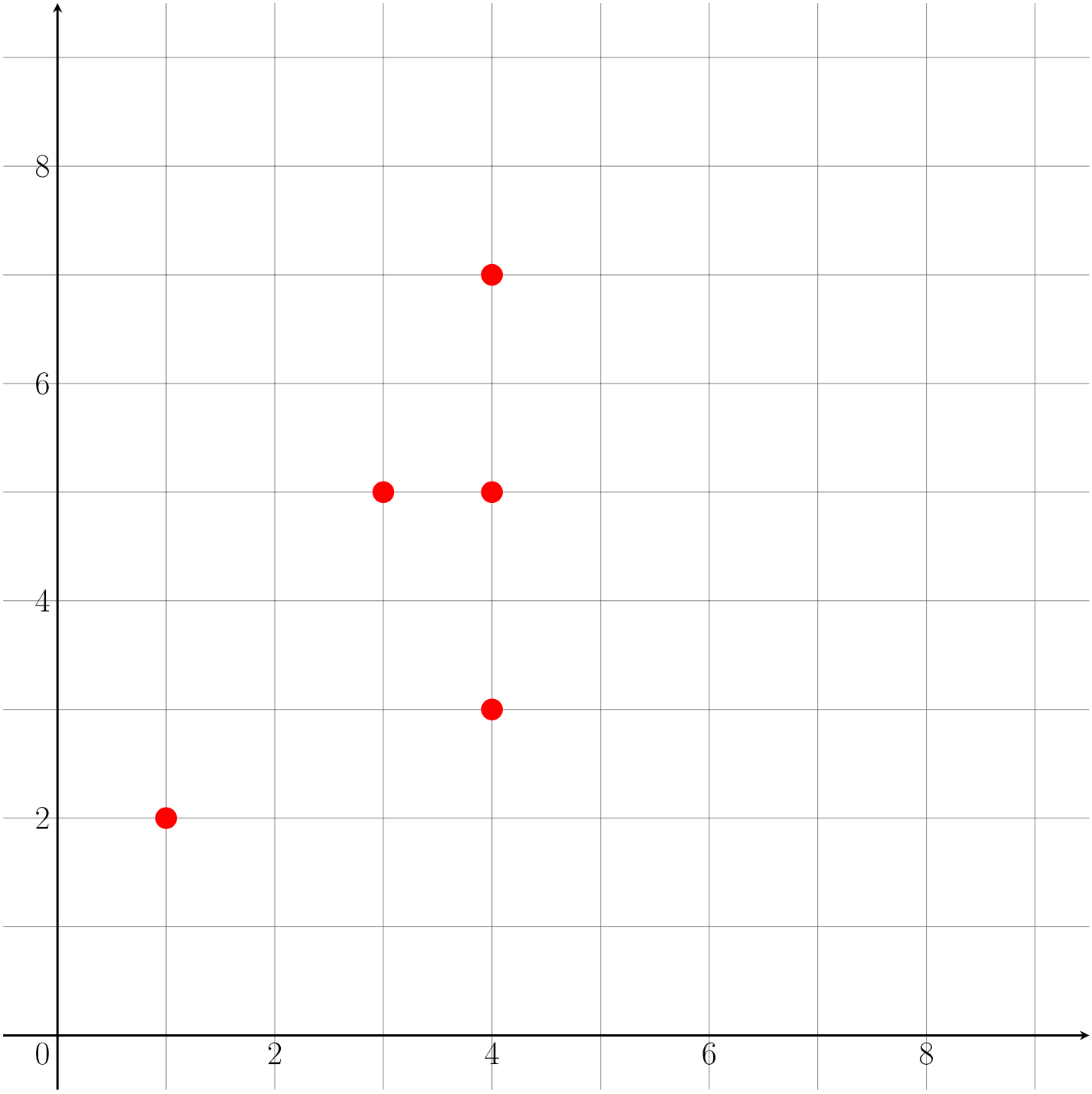
Sample Input

```
5 4
1 2
3 5
4 3
4 5
4 7
1 2 1
1 1 2
2 X 4
2 Y 5
```

Sample Output

```
bland
salty
3
2
```

Explanation for Sample Output



There is no grain of salt at $(2, 1)$. There is a grain of salt at $(1, 2)$. There are 3 grains with an x-coordinate of 4. There are 2 grains with a y-coordinate of 5.