

Southeastern European Regional Programming Contest
Bucharest, Romania
October 12, 2013

Problem C
Count

Input File: C.IN
Output File: standard output
Program Source File: C.C, C.CPP, C.JAVA

You have:

- A matrix of natural numbers, with the property that all rows and all columns are sorted in ascending order (i.e. `A[i,j]>=A[i-1,j]` and `A[i,j]>=A[i,j-1]` for all `i,j`)
- One or several pairs of numbers `(X,Y)` with the property that `Y>=X`.

For each `(X,Y)` pair, count how many numbers from the matrix are greater than or equal to `X` but smaller than or equal to `Y`.

The input file is a binary file containing 32-bit integer numbers. The input file consists of:

- One integer `N` representing the number of rows (no more than `10000`)
- One integer `M` representing the number of columns (no more than `10000`)
- `NxM` integers, representing the values from the matrix, row by row
- An unspecified number of integers, representing the `(X,Y)` pairs, one pair at a time. There will be at least one pair and at most `100` pairs in the file – and there will not be an incomplete pair at the end of the file.

For each pair you should write to standard output a value representing how many numbers in the matrix are greater than or equal to `X` but smaller than or equal to `Y`.

Sample input (here in text form, not binary, for obvious reasons)	Sample output
2 4 **1 5 10 10** **2 10 20 99** **10 99** **2 9** **100 1000** **10 10**	**5** **2** **0** **3**