
Increasing diagonals

X17276_en

Given a rectangular matrix $n \times m$, and an initial position in the matrix, determine whether the four diagonals starting at the initial position have elements in strictly increasing order or not.

Input

The input is formed by several cases. Each case starts with the number of rows n and the number of columns m , followed by n lines with m integers each. The case ends with the row and column of the initial position (starting at 0).

Output

For each case, write "yes" or "no" accordingly.

Your program should follow a right programming style. Please, include the appropriate comments.

Sample input 1

```
5 6
0 7 0 0 0 3
0 0 4 0 2 0
0 0 0 1 0 0
0 0 8 0 3 0
0 9 0 0 0 8
2 3

5 6
0 7 0 0 0 3
0 0 4 0 2 0
0 0 0 1 0 0
0 0 8 0 1 0
0 9 0 0 0 8
2 3

13 7
 498 -572 -19 -14 577 -497 91
-598 -786 -16 -42 638 -34 585
 341 503 -260 923 3 -598 -934
 155 61 -396 -17 -955 226 442
-252 -173 -700 -279 -716 908 441
 867 312 -391 -476 -38 -978 454
 359 492 -740 -985 304 -562 780
-597 632 -252 -595 -992 -907 425
-764 519 12 114 683 -300 -591
 982 282 485 926 -9 310 -633
-791 -806 445 661 -402 747 699
-723 -846 653 851 -53 411 34
-394 -373 -638 -648 86 -510 -370
11 6
```

Sample output 1

```
yes
no
no
```

Sample input 2

```
2 2
-1 2
-4 5
0 0

2 2
-1 2
-4 5
0 1

1 1
-1000000
0 0
```

Sample output 2

```
yes
no
yes
```

Problem information

Author: Amalia Duch
Translator: Maria Serna

Generation: 2026-01-25T14:00:57.328Z

© *Jutge.org*, 2006–2026.
<https://jutge.org>