

CSSU PROGRAMMING CHALLENGE

You are given a 2D grid of integers 0..9. Two cells are considered connected if they touch horizontally or vertically and if they contain the same number. Any set of connected cells form a blob. Your task is to return the size of the largest blob in the grid. (Also note that a single number counts as blob of size 1)

Your script will be tested in shell like this: `python script.py < file.in > file.out`

Therefore you should read input from standard in, and write output to standard out. We will then compare the output with our solutions.

To read a line in Python from standard in, use `raw_input()`.

To write a line in Python to standard out, use the `print` command.

The input will contain:

1st line: Number of test cases that follow. Each test case composes of:

1st line: Line containing the dimensions of the grid, #of rows R and # of columns C

R lines follow: The grid. Elements are separated by spaces

Example

Input:	Output:
3	2
2 5	1
1 4 3 4 5	7
2 2 4 3 4	
1 5	
1 2 1 5 1	
2 10	
1 2 3 4 5 6 7 5 9	
2 2 2 3 5 5 5 5	

Submission

Email us your Python 2.5 .py script at cssu@cdf.toronto.edu before October31. The script can only use the standard Python library. Please include your name and CDF account with the submission. Only one submission per person is allowed.

Prizes

The shortest (in number of characters), quickest, most obfuscated, most creative, and most elegant solutions (as judged by us) will be posted on the CSSU board next to our office, and the winners will receive free snack xor pop of choice, curtesy of the CSSU. You can check the website (www.cssu.ca) for updates/FAQ etc...