

1 - String palindrome

You are given a string, and your task is to determine whether or not the string is a palindrome.

A palindrome is a string where the string is the same when read both forwards and backwards, for example: "racecar", "12321" or "(*v*("

The input will be a string, output True or False accordingly

For example:

Input:

>racecar

Output:

>True

2 - Josephus survivor

There are N number of people (positions are from 0 to $N-1$) standing in a circle playing a game based on elimination. Eliminations begin at position K . In each round, the person that is Z places in front of the last person is eliminated. You are in this game, output the position in the initial circle in which you will win the game.

The input is a line with integers N, K, Z separated by a space. Output the winning position on a single line as an integer.

For example:

Input:

>10 0 2 - There are 10 players. The game starts at position 0 and player 0 is eliminated, then player 2 is eliminated, then 4, then 6, 8 and 10. On the next "cycle", player 1 is skipped after 10 and player 3 is eliminated, then 7 then 1, and finally 9. Leaving 5 as the winner.

Therefore output is:

>5

3 - Snail

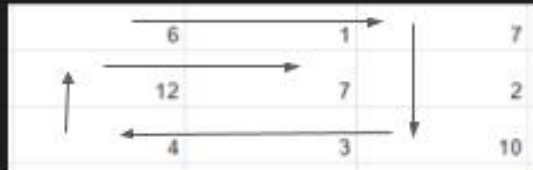
Given an a N x N array of integers, iterate through it in a snail like pattern, and output a 1D array.

For example:

Input:

>[[6,1,7], [12, 7, 2], [4, 3, 10]]

So:



Output:

>[6,1,7,2,10,3,4,12,7]