

1 - Quadrant Position

You are given a positive (x and y) cartesian coordinate in the form of a string, with the x and y separated by a space. Your task is to reflect the coordinate onto the other four quadrants of the plane in a clockwise direction. E.g. positive x, negative y will be on the first line of output.

Output the result on 3 lines, each line with a x and y coordinate separated by a space.

For example:

Input:

>1 1

Output:

>1 -1

>-1 -1

>-1 1

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

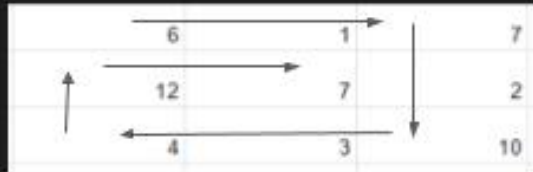
Given an a N x N array of integers, iterate through it in a snail like pattern, and output a 1D array.

For example:

Input:

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

So:



Output:

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