

HALLOWEEN-PN-CUP-WE... 90 minutes

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Question - 1 WEREWOLVES - String pattern matrix

You need to print a string as follows:

If N = 5:

10000

02000

00300

00040

00005

IF N = 3:

100

020

003

INPUT

- a number (the number of columns and rows)

OUTPUT

- a string (the expected grid of numbers)

EXAMPLES:

Input:

3

Output

100

020

003

Input:

Output

10000

02000

00300

00040

00005

We want to display a **staircase using ASCI characters**

- We enter a string containing only digits:
- Each digit represents a step width (number of "- ")
 - For instance, if we enter: "234"
 - the first step has 2 "-"
 - the second step has 3 "-"
 - the last step has 4 "-"

Note: between each step, with print a "|" as shown below:

--| |---|

INPUT

- A string, representing the steps of the staircase

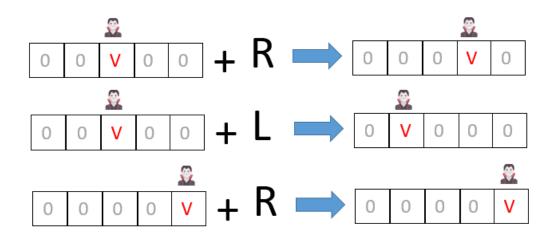
OUTPUT

- a string: the representation of the staircase

EXAMPLES

INPUT	OUTPUT
24	
2222	
234	

Question - 3
WEREWOLVES - Move position of Dracula in the line



We present a line with an array of characters

- the "0" represents an empty cell
- the "D" represent the Dracula
- For instance, on this line, Dracula is at position 3):

000D00

- We want to move Dracula LEFT or RIGHT
- We represent the move action using a character: L (move left), R (more right)
- Note: if outside of the line (left or right side), Dracula cannot move and stay at the position !!!

INPUT

- an array 2 characters (the line with the Dracula)
 - a character (the move action: L/R)

OUTPUT

- The new array, after Dracula has been moved

Example:

INPUT	OUTPUT	EXPLANATION

['0','0','0','D','0','0'] R	['0','0','0','0',' D','0']	Dracula has moved on the Right!
['0','0','0','0','0','D'] R	['0','0','0','0',' 0','D']	This time Dracula cannot move more on the right, he stays.
['0','0','0','0','0','D'] L	['0','0','0','0',' D','0']	Dracula has moved on the left.