

6. Zigzag Conversion

The string "PAYPALISHIRING" is written in a zigzag pattern on a given number of rows like this: (you may want to display this pattern in a fixed font for better legibility)

P A H N

A P L S I I G

Y I R

And then read line by line: "PAHNAPLSIIGYIR"

Write the code that will take a string and make this conversion given a number of rows:

string convert(string s, int numRows);

Example 1:

Input: s = "PAYPALISHIRING", numRows = 3

Output: "PAHNAPLSIIGYIR"

Example 2:

Input: s = "PAYPALISHIRING", numRows = 4

Output: "PINALSIGYAHRPI"

Explanation:

P I N

A L S I G

Y A H R

P I

Example 3:

Input: s = "A", numRows = 1

Output: "A"

Constraints:

- $1 \leq s.length \leq 1000$

- s consists of English letters (lower-case and upper-case), ',' and '.'.
- $1 \leq \text{numRows} \leq 1000$