

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 '.'.
- $1 \leq numRows \leq 1000$

