Diamond

Statement

In this task, you objective is to generate a *text diamond*.

You will be given N, the radius of the diamond, and S, the text to use for the diamond. You should generate a text diamond of radius N based on S.

For example, suppose that $N = 3$ and S is `ABC`.

Then the text diamond generated should look like:

```
  A
 BCA
BCABC
 ABC
  A
```

Observe that there are 3 characters from the center of the diamond to each of the corners, and the text `ABC` is repeated in row-major order. In each line, **no trailing spaces should be printed**.

Constraints

- $1 \leq N \leq 20$
- S will be non-empty, may contain alphanumeric characters, space characters and punctuation and has length at most 1000.
- No other whitespace characters (tabs, newlines, etc.) will appear within a line.

Input

The input will contain two lines.

The first line will contain a single integer N, the radius of the diamond.

The second line will contain the string S.

Output

The output should contain the text diamond.

Examples

Sample Input	Expected Output
3 ABC	A BCA BCABC ABC A
1 CS2040 rocks!	C
2 *	* *** *
4 Prof. Tan	P rof . Tan Prof. T anPro f. T

Notes

1. A skeleton file has been given to help you. You should not create a new file or rename the file provided. You should develop your program using this skeleton file.
2. You are free to define your own helper methods and classes (or remove existing ones) if it is suitable but you must put all the new classes, if any, in the same skeleton file provided.

Skeleton File

You are given the skeleton file `Diamond.java`. You should see the following contents when you open the file:

```java
/**
 * Name          :
 * Matric. No    :
*/

import java.util.*;

public class Diamond {
    private void run() {
        // implement your "main" method here
    }

    public static void main(String args[]) {
        Diamond runner = new Diamond();
        runner.run();
    }
}
```