

---

## Spirals

**P59112\_en**

---

Your task is to write a program that prints “spirals” of size  $n \times n$ , as it is shown in the examples.

### Input

The input consists of a sequence of natural numbers ended with zero.

### Output

For each  $n$ , your program must print a spiral of size  $n \times n$ . Notice that in the row of the bottom and the column on the right there only are ‘X’ s. Print a line in white after each spiral.

### Sample input 1

```
4
6
7
0
```

### Sample output 1

```
.XXX
.X.X
...X
XXXX

.XXXXX
.X...X
.X.X.X
.XXX.X
.....X
XXXXXX

.XXXXXX
.X....X
.X.XX.X
.X..X.X
.XXXX.X
.....X
XXXXXXX
```

### Observation

Although it is not essential use a matrix to solve this problem, do it for simplicity.

### Problem information

Author: Salvador Roura  
Translator: Carlos Molina

Generation: 2026-01-25T11:32:31.290Z

© *Jutge.org*, 2006–2026.  
<https://jutge.org>