

# Anti Ulam Spirals

You might be aware of the [Ulam spiral](#). Your task in this problem is to print a finite Ulam-like spiral of integers but starting with 1 at the upper left corner (please consult the example below).

## Input

You are given one integer  $t$ , denoting the number of testcases ( $t \leq 100$ ). In each of the following  $t$  lines one positive integer  $n$  ( $n \leq 200$ ) - the requested size of the spiral.

## Output

For each of the test cases output the requested spiral. Separate successive cases by an empty line.

## Example

**Input:**

```
4
2
4
1
5
```

**Output:**

```
1 2
4 3

1 2 3 4
12 13 14 5
11 16 15 6
10 9 8 7

1

1 2 3 4 5
16 17 18 19 6
15 24 25 20 7
14 23 22 21 8
13 12 11 10 9
```

## Scoring

By solving this problem you score 10 points.