

## 矩陣正時鐘、逆時鐘排列 (Spiral Matrix)

本題要求你撰寫一程式將一  $N \times N$  矩陣以順時針或逆時針螺旋方式加上從 1 開始的編號，以下左圖是順時針的  $4 \times 4$  螺旋編號矩陣，右圖則是逆時針。

This question requires you to write a program to add numbers starting from 1 to an  $N \times N$  matrix in a clockwise or counterclockwise spiral manner. The left picture below is a clockwise  $4 \times 4$  spiral numbered matrix, and the right picture is counterclockwise.

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

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

### 輸入說明 (Input Description)

測資第一行為整數  $T$  表示測資筆數，每筆測資一行包含兩整數  $N \leq 100$ ， $D \in \{1, 2\}$ ， $N$  為矩陣維度的大小， $D=1$  表示螺旋方向為順時針， $D=2$  表示螺旋方向為逆時針。

The first row of the test fund contains an integer  $T$ , which represents the number of the test fund. Each row of the test fund contains two integers  $N \leq 100$ ,  $D \in \{1, 2\}$ ,  $N$  is the size of the matrix dimension,  $D=1$  means the spiral direction is clockwise,  $D=2$  means the spiral direction is counterclockwise.

### 輸出說明 (Output Description)

每筆測試輸出指定方向的螺旋編號矩陣，矩陣元素的欄寬為 6，並在各欄間外加一空白；各筆測試的輸出間須輸出一空白行。

Each test outputs a spiral number matrix in the specified direction. The column width of the matrix element is 6, and a blank line is added between each column; a blank line must be output between the output of each test.

### 範例輸入 (Input Examples)

```
2
3 1
2 2
```

### 範例輸出 (Output Examples)

```
1      2      3
8      9      4
7      6      5
```

```
1      4
2      3
```

