

Problem

Print a pattern of numbers from **1** to ***n*** as shown below. Each of the numbers is separated by a single space.

```
4 4 4 4 4 4 4
4 3 3 3 3 3 4
4 3 2 2 2 3 4
4 3 2 1 2 3 4
4 3 2 2 2 3 4
4 3 3 3 3 3 4
4 4 4 4 4 4 4
```

Submissions

Input Format

The input will contain a single integer ***n***.

Constraints

$1 \leq n \leq 1000$

Sample Input 0

2

Sample Output 0

```
2 2 2
2 1 2
2 2 2
```

Discussions

Sample Input 1

5

Sample Output 1

```
5 5 5 5 5 5 5 5 5
5 4 4 4 4 4 4 4 5
5 4 3 3 3 3 3 4 5
5 4 3 2 2 2 3 4 5
5 4 3 2 1 2 3 4 5
5 4 3 2 2 2 3 4 5
5 4 3 3 3 3 3 4 5
5 4 4 4 4 4 4 4 5
```

Change Theme Language: C



```
1  #include <stdio.h>
2
3  void printConcentricPattern(int n) {
4      int dim = 2 * n - 1;
5      int center = dim / 2;
6
7      for (int i = 0; i < dim; ++i) {
8          for (int j = 0; j < dim; ++j) {
9              int distance = abs(i -
10                 center) > abs(j - center) ? abs(i -
11                 center) : abs(j - center);
12              printf("%d ", 1 + distance);
13          }
14          printf("\n");
15      }
16
17      int main() {
18          int n;
19          scanf("%d", &n);
20          printConcentricPattern(n);
21          return 0;
22      }
```

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