

```

1  /**
2   * Given a positive integer n, print the matrix filled with rectangle pattern as shown below:
3   * a a a a a
4   * a b b b a
5   * a b c b a
6   * a b b b a
7   * a a a a a
8   * where a = n, b = n - 1, c = n - 2 and so on.
9   */
10
11 import java.util.Scanner;
12
13 class concentricNumbers {
14     public static void main(String[] args) {
15         // Taking inputs
16         Scanner sc = new Scanner(System.in);
17         System.out.println("Enter no");
18         int n = sc.nextInt();
19         sc.close();
20         // This program is done using the distance formula
21         n = 2 * n - 1;
22         int m = (n - 1) / 2;
23         for (int i = 0; i < n; i++) {
24             for (int j = 0; j < n; j++) {
25                 System.out.print(Math.max(Math.abs(i - m), Math.abs(j - m)) + 1 + " ");
26             }
27             System.out.println();
28         }
29     }
30 }
31 /**
32  * Variable      Data      Table
33  * n              int       Store number entered by user
34  * n, m           int       Used for calculation
35  * i, j           int       Iterators
36  */

```