

```

import java.util.Scanner;

public class nDiamond {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int n;
        Scanner s = new Scanner(System.in);
        System.out.print("Please input an integer between 1 and 9: ");
        n = s.nextInt();
        s.close();
        if ((n < 1) || (n > 9)) System.out.println("Invalid input");
        else {
            int i,j;
            for (i = 1; i<=n; i++) {
                //top
                for (j = n; j > i; j--) System.out.print(" ");

                for (j = 1; j < i; j++) System.out.print(j + " ");

                System.out.print(i);

                for (j = i-1; j >= 1; j--) System.out.print(" " + j);
                System.out.println();
            }
            for (i = n-1; i>=1; i--) {
                //bottom
                for (j = n; j > i; j--) System.out.print(" ");

                for (j = 1; j < i; j++) System.out.print(j + " ");

                System.out.print(i);

                for (j = i-1; j >= 1; j--) System.out.print(" " + j);
                System.out.println();
            }
        }
    }
}

```