

StaticArrays.java

```

1 //import java.util.Random;
2 import java.util.Scanner;
3 //import java.util.Arrays;
4 public class StaticArrays {
5
6     public static void main(String[] args) {
7         Scanner in = new Scanner(System.in);
8         magicSquare(in);
9         in.close();
10    }
11    public static void magicSquare(Scanner in){
12        System.out.println("What is the size of your magic square?(only works with odds)");
13        int size = in.nextInt();
14        if(size %2 != 0) {
15            int[][] square = new int[size][size]; //row, column
16            int startcolumn = size/2;
17            int startrow = size-1;
18
19            square[startrow][startcolumn] = 1;
20            int i =2;
21            int j =1;
22            int k =1;
23
24            while(i<= size *size) {
25                if((startrow+k-1)%size == size-1 && (startcolumn+j-1)%size == size-1) {
26                    square[(startrow+k-2)%size][(startcolumn+j-1)%size] = i;
27                    k--;
28                }
29                else if(square[(startrow+k)%size][(startcolumn+j)%size] == 0) {
30                    square[(startrow+k)%size][(startcolumn+j)%size] = i;
31                    k++;
32                    j++;
33                }
34                else if(square[(startrow+k)%size][(startcolumn+j)%size] != 0) {
35                    square[(startrow+startrow+k-1)%size][(startcolumn+j-1)%size] = i;
36                    k--;
37                }
38            }
39            i++;
40
41
42        }
43        int b;
44        for(int a = 0; a < size; a ++ ) {
45            System.out.print("|");

```

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```
46         b = 0;
47         System.out.printf("% 3d", square[a][b]);
48         for(b = 1; b < size; b++) {
49             System.out.printf("% 5d", square[a][b]);
50         }
51         System.out.println(" |");
52     }
53 }
54
55
56     else
57         System.out.println("Please input an odd number");
58
59 }
60 }
61
62
63
```