CSF
Hwk09 Challenge
Oh, Oh, Oh, it's Magic!

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1) Create a class called h9. Write a method that takes a two dimensional array and determines if it is a magic square. Your method should look like this:

```
public static boolean detectMagic(int[][] x) {
}
```

To be a magic square:

a) The array must be square (NxN).
b) The sum of all columns, rows, and diagonals must be the same number (the magic number).

Addition 1

The array must contain all the numbers 1-N^2.

2) Write a method that creates an **odd** magic square given the number N. Note that N must be an odd number. Your method should look like this:

```
public static int[][] makeMagic(int n) {
 }
```

To create an odd magic square, use the following algorithm:

a) Put the number 1 in the middle of the top row.
b) Place each successive number diagonally up and to the right of the previous number.
c) Treat the array as a "wrap-around" universe.
d) If a number is already where you want to place your number, place the number in the current column, one row down. and continue.

3) Extra Challenge: Write a method that produces an **even** sided magic square. You will need to research this! Maybe you can get even ones that are multiples of four?