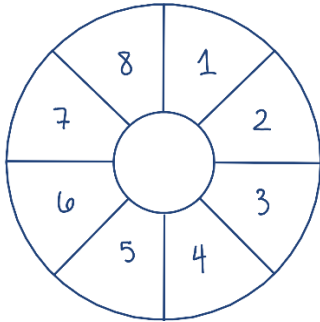


# CSE 142 Section Handout #4

## Debugging Sheet

The following is code for a method that simulates spinning the wheel pictured below until we run the desired result `numSpins` times. On each spin, it prints the spin and a message based on whether the spin was successful. When it's done spinning, it outputs how many total spins it took. The current implementation has at least one bug in it.



One\* expected output is:

```
Spun 6. Yay!!  
Spun 8. oof  
Spun 7. oof  
Spun 6. Yay!!  
It took 4 spins!
```

One\* current output is:

```
Spun 5. oof  
Spun 7. oof  
Spun 6. Yay!!  
Spun 5. oof  
Spun 2. oof  
Spun 0. oof  
Spun 6. Yay!!  
Spun 4. oof  
Spun 2. oof  
Spun 4. oof  
.....
```

```
public static void spinTheWheel(int numSpins, int desired, Random r) {  
    int total = 0;  
    int numDesired = 0;  
    while (numDesired < numSpins) {  
        int spin = r.nextInt(8);  
        System.out.print("Spun " + spin + ". ");  
        if (spin == desired) {  
            System.out.println("Yay!!");  
            numDesired++;  
        } else {  
            System.out.println("oof");  
        }  
        total++;  
    }  
    System.out.println("It took " + total + " spins!");  
}
```

The command `spinTheWheel(2, 6, r);` is run from `main`. Currently the code does compile but runs indefinitely. The first 10 lines of the output are provided for reference.

Modify the existing code to compile and produce the correct output.

\*It turns out that these outputs are from the same run due to something called "seeding". You aren't required to understand how this works to solve this debugging problem, but if you want to know more, check out the FAQ for assignment 5!

## CSE 142 Section Handout #4

### Solutions

```
public static void spinTheWheel(int numSpins, int desired, Random r) {
    int total = 0;
    int numDesired = 0;
    while (numDesired < numSpins) {
        int spin = r.nextInt(8) + 1;
        System.out.print("Spun " + spin + ". ");
        if (spin == desired) {
            System.out.println("Yay!!");
            numDesired++;
        } else {
            System.out.println("oof");
        }
        total++;
    }
    System.out.println("It took " + total + " spins!");
}
```