Credit Name: CSE 2120 Data Structures 1
Assignment Name: EvensAndOdds

Decribe the errors you've encountered while working on this assignment. What caused the error and how do you overcome the error?

```java
System.out.println("ODD:");
for (int i = 0; i < numbers.length; i ++) {

    if ((numbers[i] % 2) != 2) {
        System.out.print(numbers[i] + " ");
    }
}
```

```
620DD:
43 65 24 15 94 73 94 36 42 13 92 19 46 41 77 54 82 10 18 12 74 75 68 58 5
```

This error occured because the if expression was set to determine if the number divded by 2 had a remainder of 2. This did not result in determining if the number was odd.

```java
System.out.println("ODD:");
for (int i = 0; i < numbers.length; i ++) {

    if ((numbers[i] % 2) != 0) {
        System.out.print(numbers[i] + " ");
    }
}
```

```
40DD:
87 43 63 21 71 99 33 5 23 43 63 89 89 65
```

To fix this, I set the expression to check if it was equal or not to 0, as a 0 remainder would mean the resultant number was an even number.

```java
for (int i = 0; i < numbers.length; i ++);

    numbers[i] = (int)((100)* Math.random());
}
```

The red anotation under the "i" was the cause of a syntax error.
The if statement was not properally closed with "{" bracket at the end of the line, producing the error.
This was fixed by simply removing the ";" and replacing it with a "{".

```java
System.out.println("ODD:");
for (int i = 0; i < numbers.length; i ++) {

    if ((numbers[i] % 2) != 0) {
        System.out.print(numbers[i] + " ");
    }
}

System.out.println("EVEN:");
for (int i = 0; i < numbers.length; i ++) {

    if ((numbers[i] % 2) == 0) {
        System.out.print(numbers[i] + " ");
    }
}
```

```
ODD:
7 35 7 43 91 49 7 25 5 71 45 EVEN:
42 54 10 28 34 32 10 20 24 2 62 88 46 88
```

Spacing error; the "EVEN" header was located in the same line as the odd numbers.

```java
System.out.println("ODD:");
for (int i = 0; i < numbers.length; i ++) {

    if ((numbers[i] % 2) != 0) {
        System.out.print(numbers[i] + " ");
    }
}

System.out.println(" ");
System.out.println("EVEN:");
for (int i = 0; i < numbers.length; i ++) {

    if ((numbers[i] % 2) == 0) {
        System.out.print(numbers[i] + " ");
    }
}
```

```
ODD:
3 35 85 13 13 87 65 23 41 1 21 9 81
EVEN:
72 18 32 98 30 80 72 50 52 78 96 16
```

Fixed by adding a print statement; adding a black space in a new line.