Homework 3

- Finish the for loops lab
- Read the rest of Chapter 2
- Self -Check problems: 1-8
- Watch youtube video: https://www.youtube.com/watch?v=ZcTgmKtvSQ4

1. Complete the code for the following for loop:
```
for (int i = 1; i <= 6; i++) {
   // your code here
}
```
so that it prints the following numbers, one per line:
–4
14
32
50
68
86

2. What is the output of the following oddStuff method?
```
public static void oddStuff() {
    int number = 4;
    for (int count = 1; count <= number; count++) {
       System.out.println(number);
       number = number / 2;
    }
}
```

3. What is the output of the following loop?
```
int total = 25;
for (int number = 1; number <= (total / 2); number++) {
   total = total – number;
   System.out.println(total + " " + number);
}
```

4. What is the output of the following loop?
```
System.out.println("+---+");
for (int i = 1; i <= 3; i++) {
   System.out.println("\\ /");
   System.out.println("/ \\");
}
System.out.println("+---+");
```

5. What is the output of the following loop?

```
for (int i = 1; i <= 3; i++)
    System.out.println("How many lines");
System.out.println("are printed?");
```

6. What is the output of the following loop?

```
System.out.print("T-minus ");
for (int i = 5; i >= 1; i——) {
    System.out.print(i + ", ");
}
System.out.println("Blastoff!");
```

7. Suppose that you are trying to write a program that produces the following output:
1 3 5 7 9 11 13 15 17 19 21
1 3 5 7 9 11

The following program is an attempt at a solution, but it contains four major errors. Identify them all.

```
1 public class BadNews {
2 public static final int MAX_ODD = 21;
3
4 public static void writeOdds() {
5     // print each odd number
6     for (int count = 1; count <= (MAX_ODD _ 2); count++) {
7        System.out.print(count + " ");
8        count = count + 2;
9     }
10
11    // print the last odd number
12    System.out.print(count + 2);
13 }
14
15 public static void main(String[] args) {
16    // write all odds up to 21
17    writeOdds();
18
19    // now, write all odds up to 11
20    MAX_ODD = 11;
21    writeOdds();
22  }
23 }
```

8. What is the output of the following unknown method?

```java
1 public class Strange {
2    public static final int MAX = 5;
3
4    public static void unknown() {
5       int number = 0;
6
7       for (int count = MAX; count >= 1; count——) {
8          number += (count * count);
9       }
10
11   System.out.println("The result is: " + number);
12   }
13
14   public static void main(String[] args) {
15      unknown();
16   }
17 }
```