**Homework 3**

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* Finish the for loops lab
* Read the rest of Chapter 2
* Watch youtube video: https://www.youtube.com/watch?v=ZcTgmKtvSQ4
* Self -Check problems: 15-20, 26-27

**15.** Complete the code for the following for loop:

for (int i = 1; i <= 6; i++) {

// your code here

System.out.println(18 \* i – 22);

}

so that it prints the following numbers, one per line:

–4

14

32

50

68

86

**16.** 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;

}

}

4

2

**17.** 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);

}

24 1

22 2

19 3

15 4

10 5

**18.** 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("+---+");

+---+

\ /

/ \

\ /

/ \

\ /

/ \

+---+

**19.** 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?");

How many lines

are printed?

How many lines

are printed?

How many lines

are printed?

**20.** 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!");

T-minus 5, 4, 3, 2, 1, Blastoff!

**26.** 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 }

* The loop prints every third number, not every odd number
* On line 12 count is out of scope. It must be placed outside the loop
* On line 12 count should be printed, not count+2
* On line 20 MAX\_ODD cannot be assigned a value for the second time

**27.** What is the output of the following unknown method?

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 }

The result is: 55