YourName: Shyaan Khan period: 4

Directions: Complete all questions

Single For Loop Explanation and MiniLabs

```
1.  *
2.     Simple For loop Example
3.     This Java Example shows how to use for loop to iterate in Java program.
4.  */
5.
6.  public class SimpleForLoopExample {
7.
8.     public static void main(String[] args) {
9.
10.      /* Syntax of for loop is
11.       *
12.       * for(<initialization> ; <condition> ; <expression> )
13.       *    <loop body>
14.       *
15.       * where initialization usually declares a loop variable, condition is a
16.       * boolean expression such that if the condition is true, loop body will be
17.       * executed and after each iteration of loop body, expression is executed
    which
18.       * usually increase or decrease loop variable.
19.       *
20.       * Initialization is executed only once.
21.       */
22.
23.       for(int index = 0; index < 5 ; index++)
24.         System.out.println("Index is : " + index);
25.
26.       /*
27.        * Loop body may contain more than one statement. In that case they
    should
28.        * be in the block.
29.        */
30.
```

```
        for(int index=0; index < 5 ; index++)
        {
        System.out.println("Index is : " + index);
        index++;
        }

        /*
         * Please note that in above loop, index is a local variable whose scope
         * is limited to the loop. It can not be referenced from outside the loop.
         */
    }
}

/*
Output would be
Index is : 0
Index is : 1
Index is : 2
Index is : 3
Index is : 4
//output for 2nd for loop
Index is : 0
Index is : 2
Index is : 4
*/
```

#1 MiniLab: You Try: *write in Eclipse using a for loop that prints:*

Count is: 1

Count is: 2

Count is: 3

Count is: 4

Count is: 5

Count is: 6

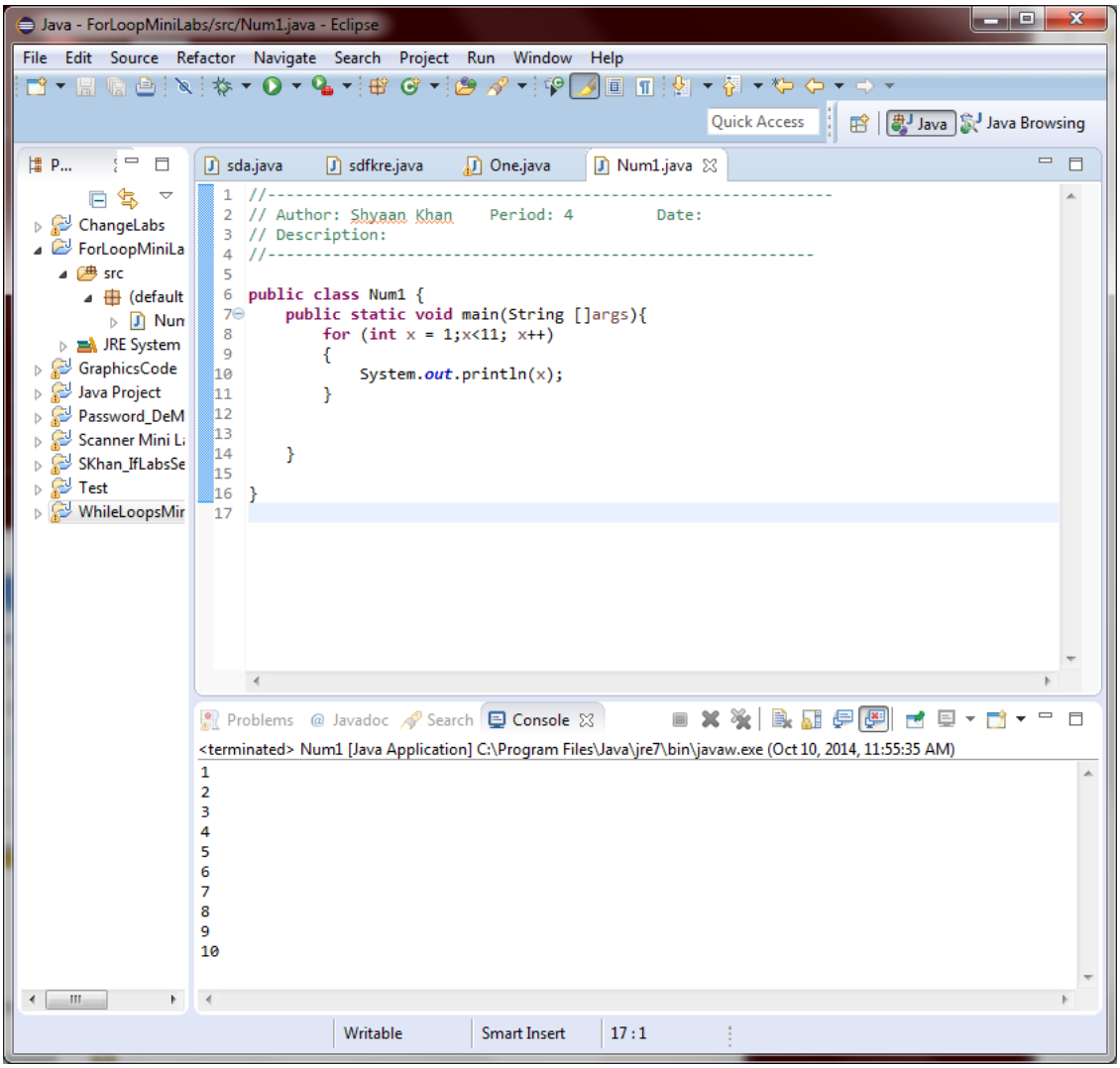
Count is: 7

Count is: 8

Count is: 9

Count is: 10

Paste your code: I NEED TO SEE CODE AND SCREENSHOT OF OUTPUT



#2:

Now try doing it backwards

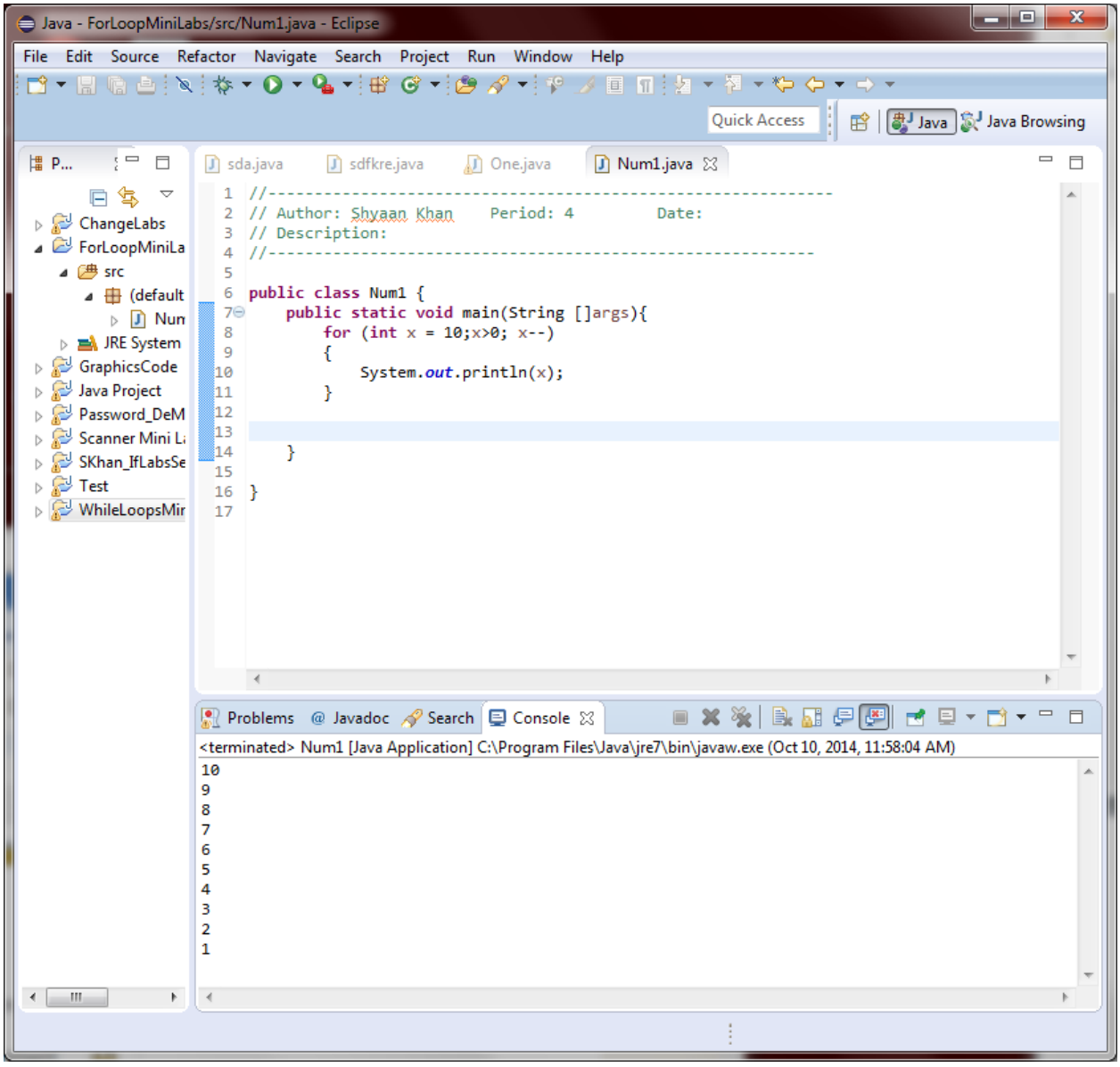
count is : 10

count is : 9

count is: 8

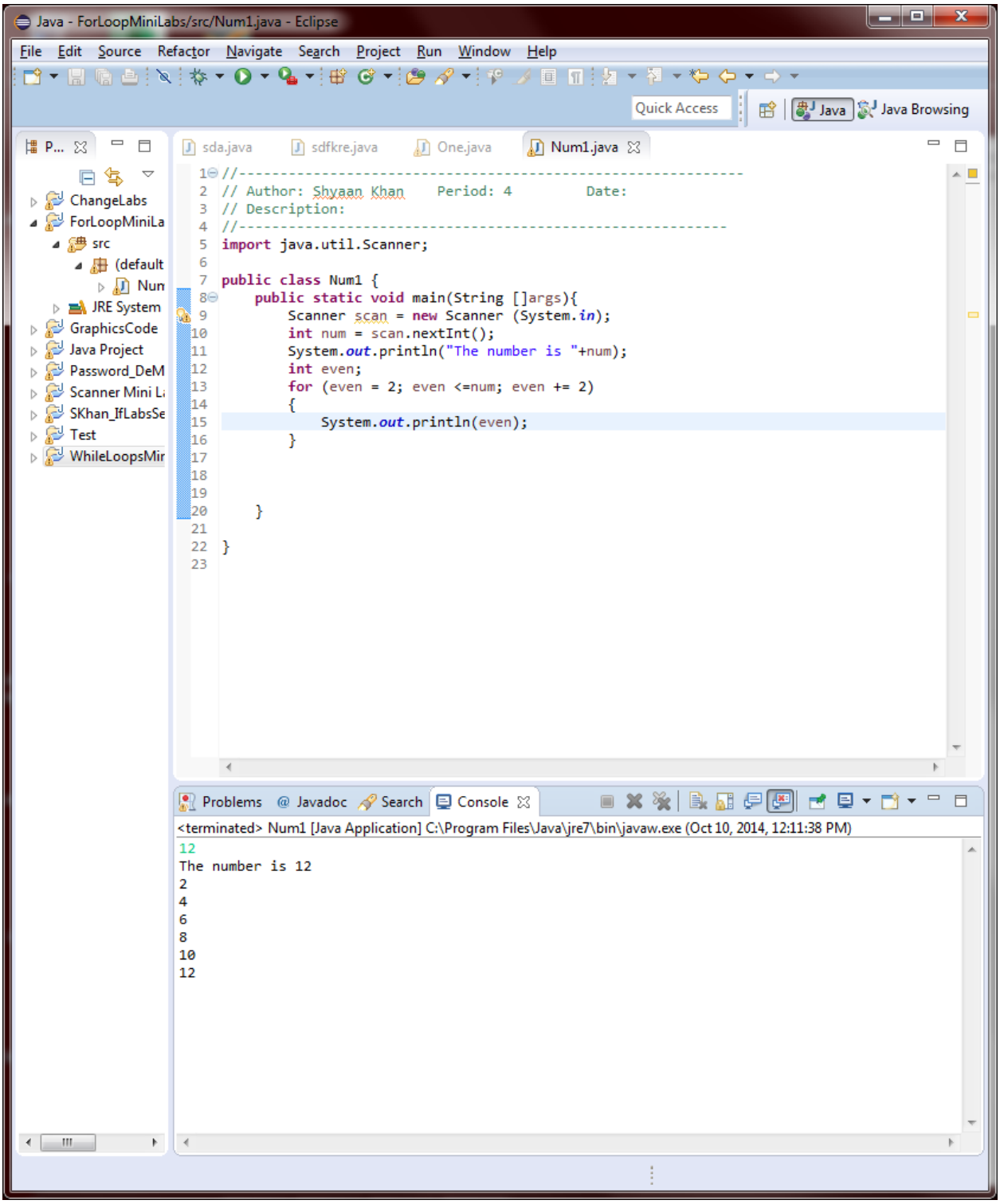
etc up to 1

Paste your code: I NEED TO SEE CODE AND SCREENSHOT OF OUTPUT



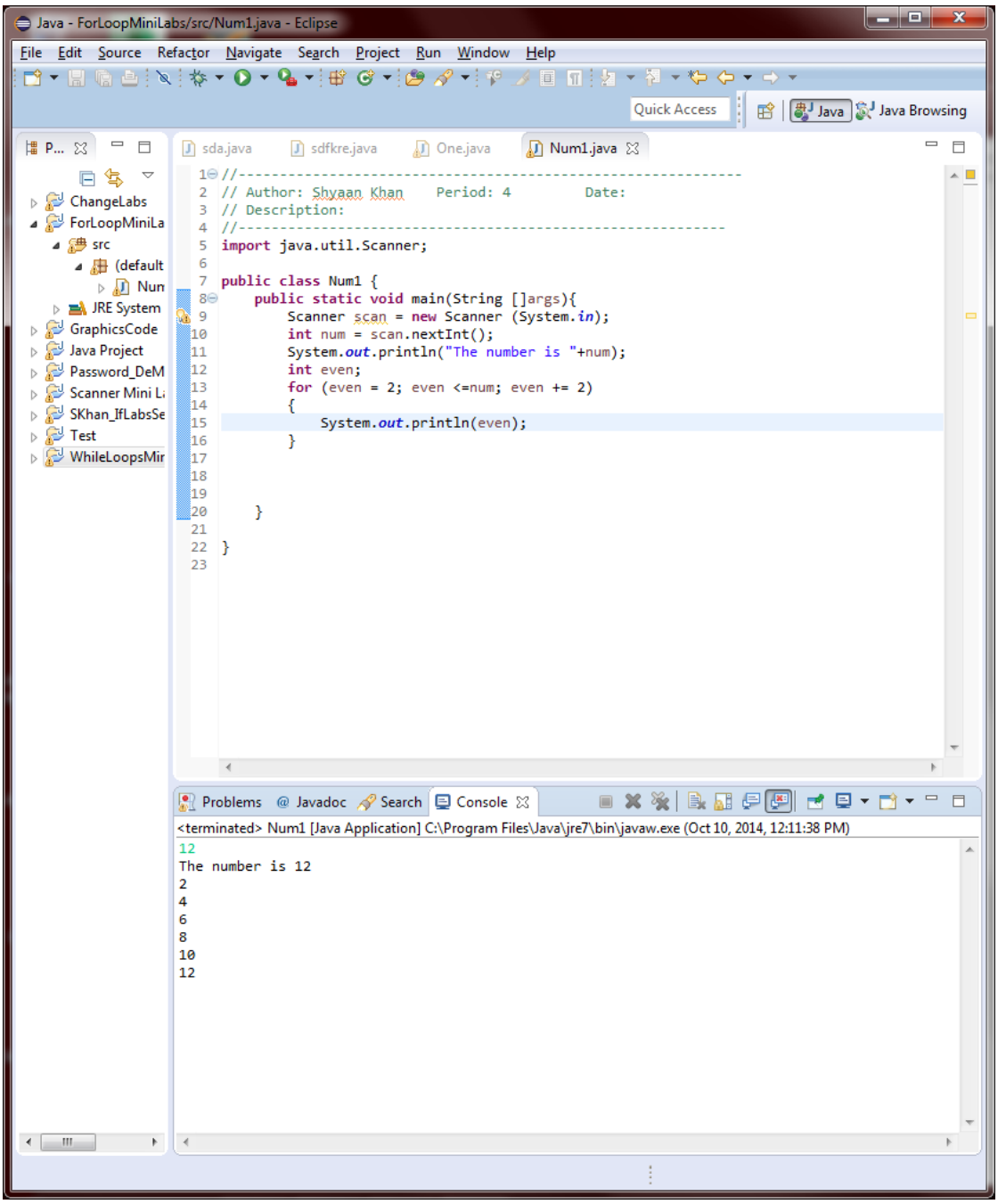
#3: Write a for loop that prints 6 stars ******

Paste your code: I NEED TO SEE CODE AND SCREENSHOT OF OUTPUT



#4: Using a **for loop**. Ask a user for a number. Print the number given by the user and all the **even** numbers up to and including the number given.

Paste your code: I NEED TO SEE CODE AND SCREENSHOT OF OUTPUT



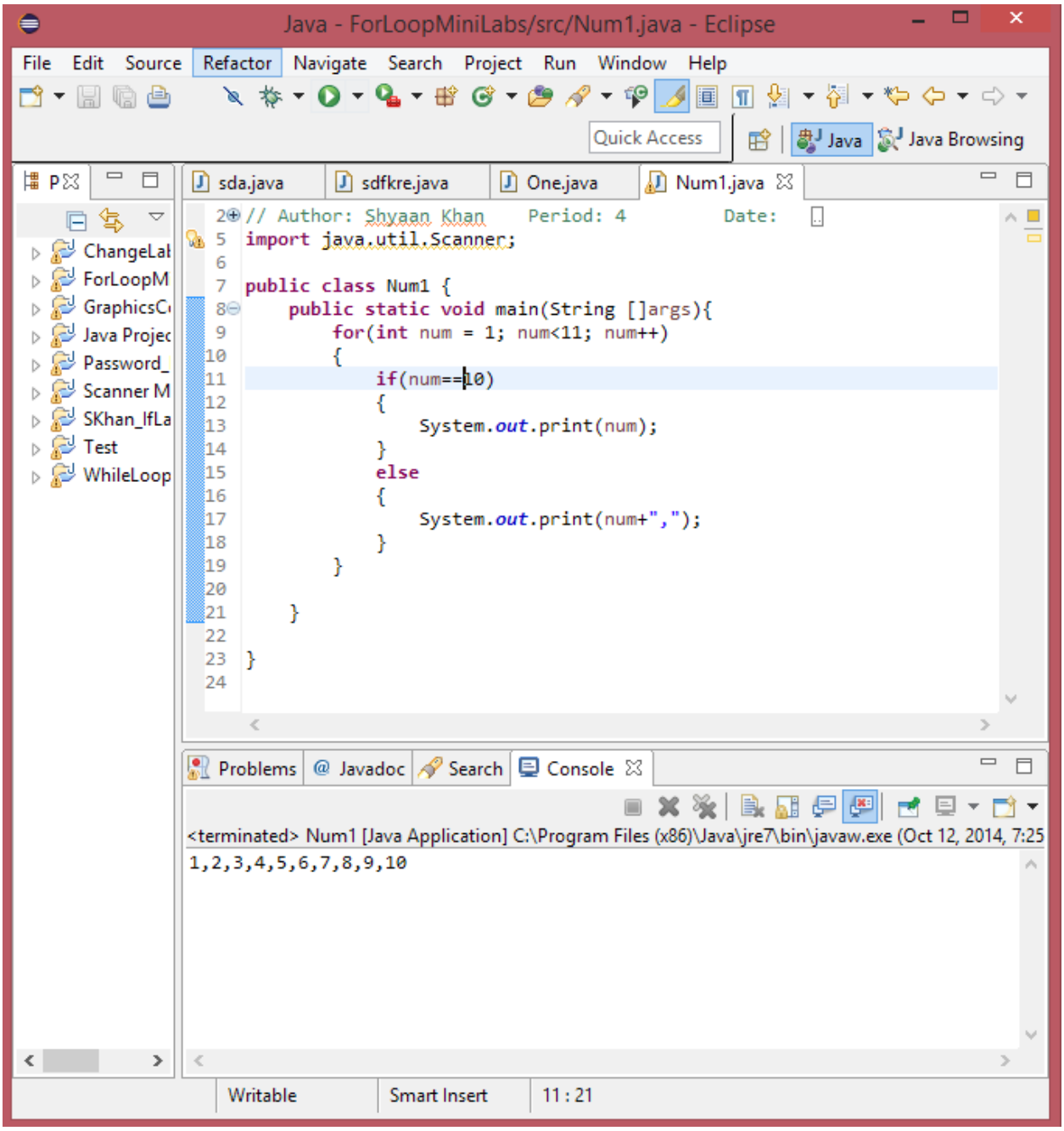
#5: Write a for loop to display numbers 1 through 10. I want to have a comma in-between each number like this:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10

I do not want to have commas after last number - NOT LIKE THIS!

1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

Paste your code: I NEED TO SEE CODE AND SCREENSHOT OF OUTPUT



#6: What will the following print? and Why?

```
int y = 0;
for (int x = 1; x <= 5; x++)
{
y = y + 10;
}
System·out·println(y);
System·out·println(x);
```

10
5

Because y is the same (y=0) every time the loop runs, and since the print for x is out of the loop, it will print the last loop of x, which is 5 since you add 1 to x until it is less than or equal to 5,

7· What will the following print? and why?

```
int x;
int y = 0;
for (x = 1; x <= 5; x++)
{
y = y + 10;
}
System·out·println(y);
System·out·println(x);
```

10
5
Because it is almost identical to the previous code· The only difference is that it is declared out of the for loop, which doesn't change the output·

8. More Scope: Which statement below is illegal?

```
int i, j, k;
for (j = 1; j <= 10; j++)
{
k = j;          =1, =2
k = i;
i = j;          =1
k = i;          =1
}
```

`k = i;` is illegal.

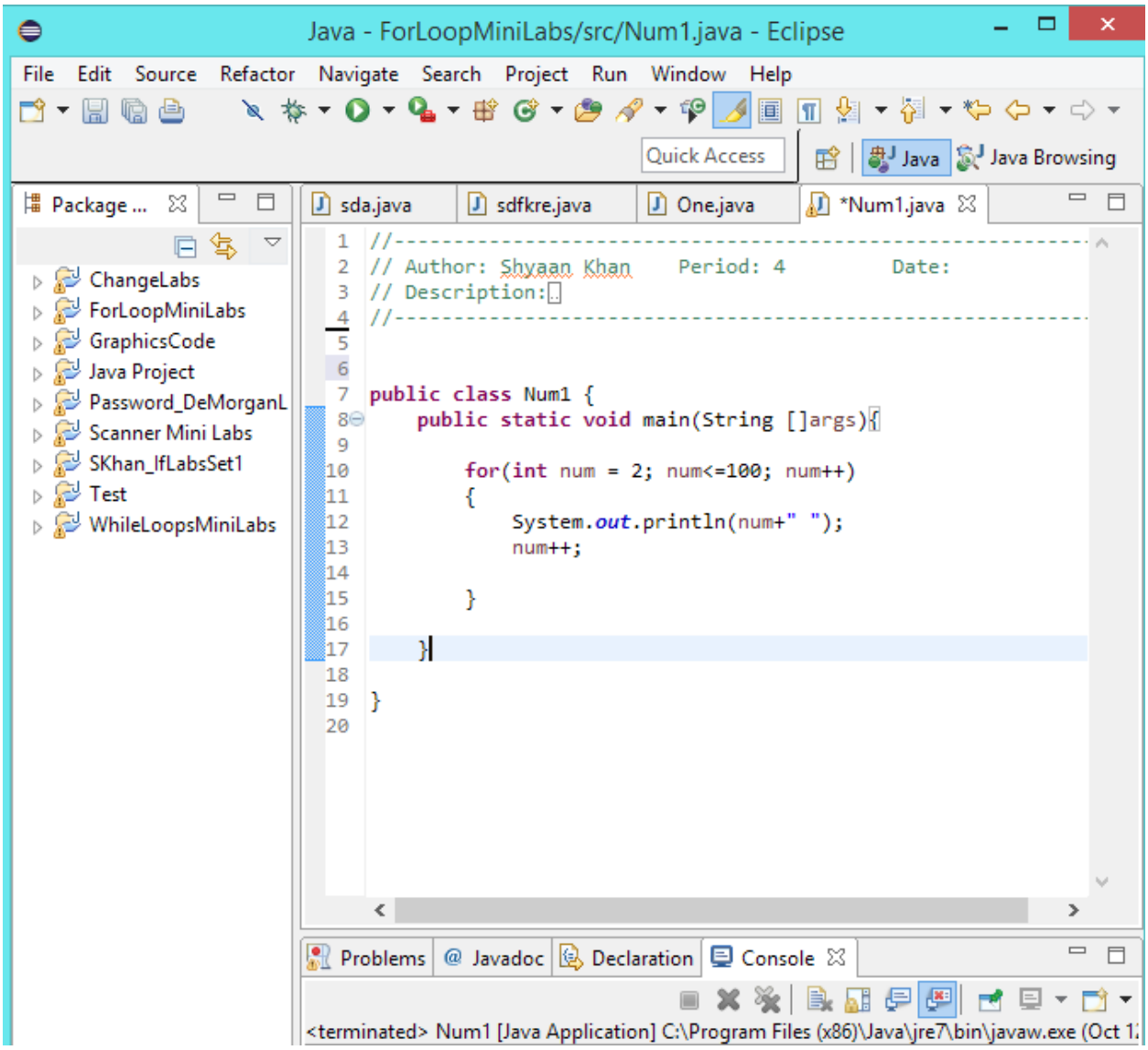
9. What is the output below of the code fragments with inputs of: 3 6 0 9 -5 2

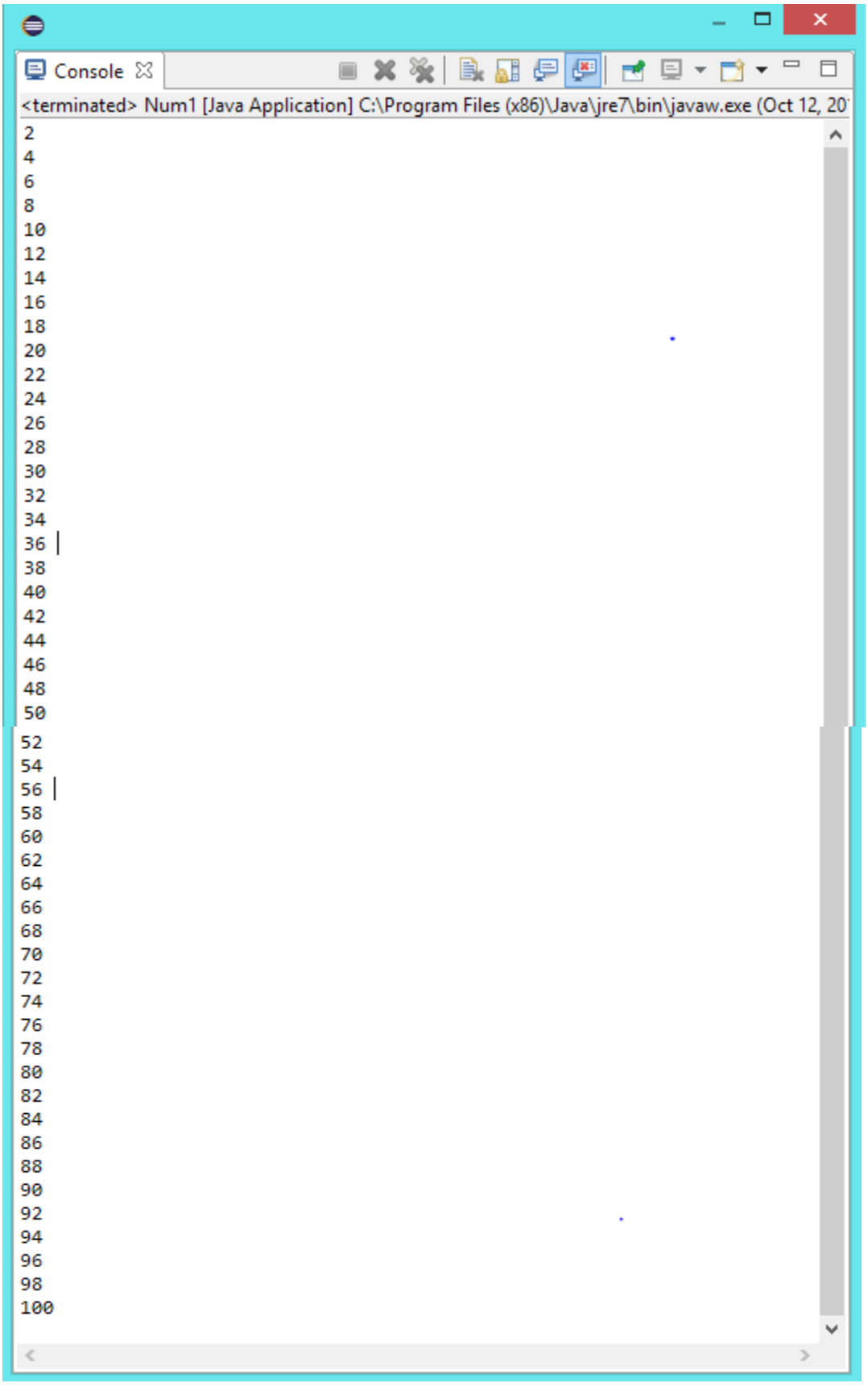
```
for (count = 1; count <= 5; count++)                    count     number
{
String input = JOptionPane.showInputDialog("Type a #");
int number = Integer.parseInt(input);
        if (number <= 0)
        continue;
        number = number + 2;
}
System.out.println(number);

}
```

Input = 3
Output = -5

10) Write a for statement that prints all even numbers from 2 to 100 inclusive. I NEED TO SEE CODE AND SCREENSHOT OF OUTPUT




Console
<terminated> Num1 [Java Application] C:\Program Files (x86)\Java\jre7\bin\javaw.exe (Oct 12, 20
2
4
6
8
10
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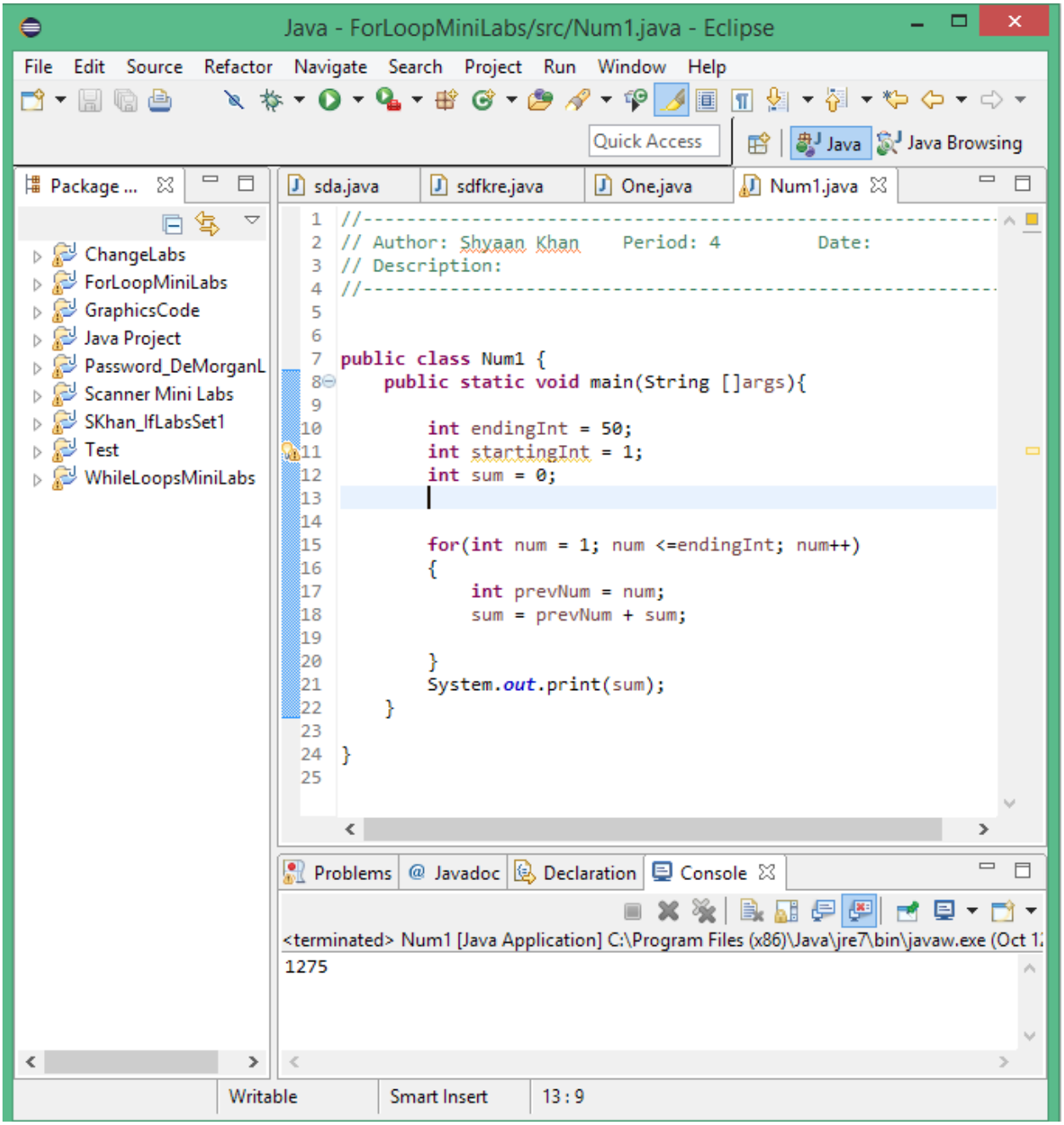
11) Write a for loop that sums the integers from 1 to 50. I NEED TO SEE CODE AND SCREENSHOT OF OUTPUT