

Lab 10

Instructions: Complete the steps below. Be sure to upload a copy of all your source code (.java) files to the link on Brightspace by its deadline, so that you can receive credit for this lab.

1. Under the (In2Cm.java) class write the method

```
public static double inToCm(double in)
```

The method takes a value in inches and returns the corresponding value in centimeters.

The conversion factor is 1 in = 2.54 cm. Write a main method which accepts the value for inches and invokes the method inToCm to convert inches to cm. Print the result as shown in the sample runs below:

Here are some sample runs:

Enter the value in inches: 4

4 inches are 10.16 cm

Enter the value in inches: 7.2

7.2 inches are 18.288 cm

2. Under the (PatternDisplay.java) class write a method to display a pattern as follows:

```

                1
              2  1
            3  2  1
          ...
        n  n-1... 3  2  1
```

the method header is **public static void displayPattern(int n)**

Write a test program that prompts the user to enter an integer then the pattern.

3. Under the (ReverseInteger.java) class write a method with the following header to display an integer in reverse order:

```
public static void reverse(int number).
```

For example, reverse(3456) displays 6543. Write a test program that prompts the user to enter an integer then displays its reversal.

Grading Guidelines: This lab is graded on a scale of **0-3 points**, assigned as follows:

- **0** - The student did not attend the lab,
- **3** - The solutions are complete OR the student spent the entire lab solving the required lab problems (in this case, the students may not arrive at the lab after the lab started and may not leave until the lab ends).