# LAB 3 - Mathematic expressions

**10 Points**

1. **Write an application that outputs three lines as follows:**

7 / 4 using integer division equals <result>

7 / 4 using floating-point division equals <result>

7 modulo 4 equals <result>

where <result> stands for the result computed by your application. Use **named constants** for 7 and 4 everywhere in your application (including the output statements) to make the application easy to modify. Comments are not necessary for this lab activity, choose meaningful identifiers, and use indentation as shown by the code in your text. Save this file after you have successfully completed the problem.

Listed below is a partial implementation of the program using the instructions described above.

public class MathExpressions1 {

public static void main(String[] args) {

final int NUM = 7;

final int DEM = 4;

System.out.println(NUM + “ / ” + DEM + “ using integer division equals “ + );

System.out.println(NUM + “ / ” + DEM + “ using floating-point division equals “ + );

System.out.println(NUM + “ modulo ” + DEM + “ equals “ + result);

}

}

1. **Write a java application called MathExpressions2 that takes an integer Celsius temperature as input and converts it to its Fahrenheit equivalent. The formula is**

Fahrenheit **= 9/5 Celsius + 32**

* You will need to prompt the user to input the temperature in Celsius.
* After the Celsius temperature is input, read in the value and perform the conversion to Fahrenheit.
* Then, output the original, Celsius temperature along with the corresponding Fahrenheit equivalent. (Verify that your program displays the correct result to 2 decimal places.)
* The application should include appropriate messages identifying each value.
* Save this file after you have successfully completed the problem.

1. **Submit both files MathExpressions1.java and MathExpressions2.java.**