**Programming** **Lab Exercise 5**

Before you start:

Create a folder called **lab5** inside your personal **java** folder you created at the start. Save all your work for lab5 in this folder.

**Purpose:**

Tests your understanding of the concept of classes and inheritance in Java.

**Q1.**

1. Create a java class called Point which will be used to describe a point in 2D space. It will need to have two protected variables x and y to represent the coordinates of the point. Create the necessary getter and setter methods. Also create a toString() method
2. Create a subclass of Point called Circle which will need an additional attribute called radius. Define the necessary getter and setter methods for radius.
3. Your classes should be able to run using the following driver program:

// Author : Oisin Cawley

// Date : Jan-2016

// Purpose : A test driver program for our

: Point/Circle inheritance

public class MyFirstCircle

{

public static void main (String args[])

{

Point myPoint = new Point(10, 20);

Circle myCircle = new Circle(15, 30, 5);

System.out.println("Point details : " + myPoint);

System.out.println("Circle details: " + myCircle);

}

}