**CSE 135: Fundamentals of Computer Programming**

**Circle Problem**

1. Create a class Point with two data fields ‘x’ and ‘y’. Now create two methods ‘setX’ and ‘setY’ to set the values of data fields ‘x’ and ‘y’ respectively and then two methods ‘getX’ and ‘getY’ to get the values of ‘x’ and ‘y’ respectively.
2. The previous task used the default constructor to initialize the class. Now create a constructor for the class Point which will take values of ‘x’ and ‘y’ and then set these values at the time of object initialization.
3. Create a Circle class with two private members for the centre of that Circle and the radius. Take the value of centre of the circle from the user. Take another Point (xi, yi ) from the user and write a method in the circle class which will determine whether the point (xi, yi)is inside the circle or not.

Hint: Formula to find whether a point is inside circle is:

1. Can you take 5 points from the user and determine whether they are inside circle, on the circle or outside the boundary of the circle.