Problem #1
(10 marks = 5 + 5)

1. Write a `Circle` class that contains x and y coordinates of the center and the length of the radius. All the coordinates and the radius are integers. Also write a constructor that takes the x and y coordinates of the center and the radius as parameters and assigns them accordingly.
2. Write a `Rectangle` Class that contains x and y coordinate of each vertex. All the coordinates are integers.

If you need getters and setters, you need to write them too. Also you must follow object oriented practices.

Problem #2
(10 marks)

Write a member function `int isInscribed(Circle c)`, which returns 1 if the `Circle c` is inscribed in the caller `Rectangle`, otherwise returns 0. Write a main function to read 11 integers. The first 3 integers indicate the x and y coordinates of the center of the circle and the radius of the circle. The next 8 integers represent the x and y coordinates of each vertex of the `Rectangle`. Using the Classes defined in Problem 1 and the function, print "Inscribed" if the `Circle` is inscribed in the `Rectangle`, otherwise print "Not Inscribed".

Sample Input	**Sample Output**
0 0 5 5 5 5 -5 -5 -5 -5 5	Inscribed
2 3 5 7 8 -3 8 -3 -2 7 -2	Inscribed
2 3 5 8 9 -2 9 -2 -1 8 -1	Not Inscribed