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 are integers and the member variables are public. Also write a constructor takes the x and y coordinates of the center and the radius as parameter and assigns them accordingly.
2. Write a `Quadrilateral` Class that contains x and y coordinate of each vertex. All the coordinates are integers and the member variables are public.

If you need getters and setters, you need to write them too.

Problem #2
(10 marks)

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

Sample Input	**Sample Output**
0 0 5 3 4 -3 -4 -3 4 -4 3	Inscribed
1 1 5 3 4 -3 -4 -3 4 -4 3	Not Inscribed
0 0 5 3 4 -3 -4 -3 4 -5 3	Not Inscribed