Name:_____

1. Consider the following class:

```
class circle:
    def __init__(self,r):
        self.radius = r
    def getRadius(self):
        return self.r
```

a. Given the following code:

```
c = circle(20)
```

Which of the following statements are correct (Mark all correct answers)? (2 points)

i. circle is an object
ii. c refers to an object
iii. circle(20) creates a circle object
iv. c is the class circle
v. None of the above

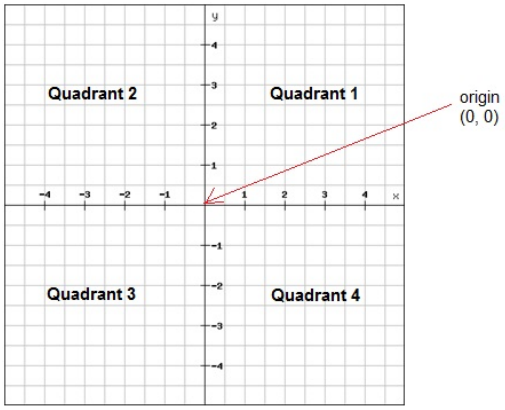
b. Assume that the list allCircles contains objects of type circle, write code that will print the radius of each circle. You must use the getRadius function.. (2 points)

```
allCircles = [ ]
…
#assume that a bunch of circle objects have been added to the list
```

2. In class, we worked on a "point" class that is described below:

```
class point:
   def __init__(self,x,y,col):
      self.x = x
      self.y = y
      self.c = col
```

a. Add a new function called getQuadrant to this class that checks which quadrant this point is in the Cartesian coordinates. The following image shows how the four quadrants are defined. Your function should return 1 for first quadrant, 2 for second, and so on. (3 points)



b. Add another function to this class that takes another point as input parameter and checks if the two points are in the same quadrant. For this you can assume that the getQuadrant function of part "a" works. You must use the getQuadrant function. (3points)