Unit 11 Practice Problems (Unit 12 Day 1 mini-practicum)

The goal of these "mini practica" is to give you practice with coding problems similar to those that you will see on the midterm practica. You will be required to solve each problem with minimal assistance. You should use these mini-practica as an opportunity to gauge your preparedness for the exams. You should create all of your required files in this folder along with these instructions. Each mini-practicum counts as a homework assignment.

==========

You have been provided with a file named mini_practicum.py that contains some code to help you solve the following problems.

1. A circle has a center and a radius.
    a. Use a tuple to represent the center of a circle.
2. A circle has a string representation in the form "Center: (x, y) radius: r".
3. We will say circle A is less than circle B if the radius of circle A is less than the radius of circle B.
4. Two circles intersect if and only if the sum of the radii of the two circles is greater than the distance between the centers. The distance between two points (x1, y1) and (x2, y2) is computed as
   `math.sqrt((x1-x2)**2 + (y1-y2)**2)`

Examine the main function. You will need to add methods to the circle class so that the output of your program is as follows when it runs:

```
[center: (3, 3) radius: 1, center: (0, 0) radius: 2, center: (4, 0) radius: 3]
circle1 and circle2 intersect: True
circle1 and circle3 intersect: False
circle2 and circle3 intersect: True
```

Here is a visualization of the three circles in the main function.