Proof of Circle Equation

To complete this assignment you will need graph paper and a compass.

1. Fold graph paper in half. Draw a coordinate plane on both halves.
2. Draw a circle with center at (0,0) and radius 5.
3. Put a dot on the point (3,4). Connect this dot to the center of the circle. Label this line "r".
4. Construct a right triangle using the line "r" and the x axis.
5. Use Pythagorean theorem to prove that the radius is indeed 5.

For the second circle:

6. Using the other coordinate plane you drew, construct a new circle with center at (2,3) and radius 4.
7. Pick a point on the circle and try and use the method from the first circle to find an equation for this new circle.