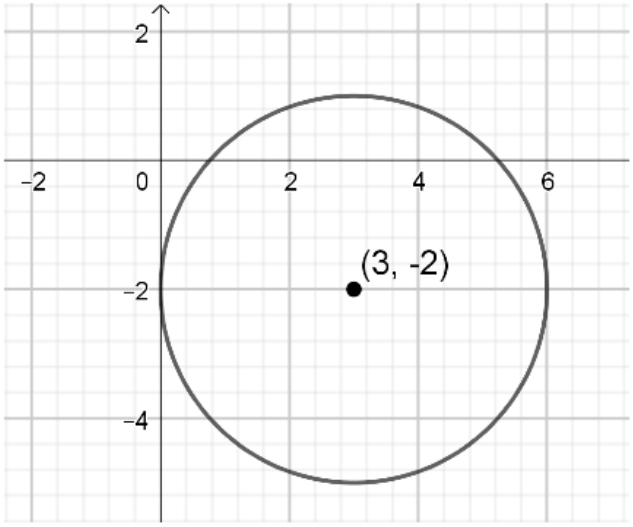
Geometry – Circles in the Coordinate Plane **Name** _____
14b Homework: The Equation of a Circle **Pd** _____ **Date** _____

1. Determine the equation of the circle shown in the coordinate plane below.



2. Answer the following questions regarding the circle C defined by $(x - 2)^2 + (y + 1)^2 = 100$.

A. The center of C is located at the point P = (_____ , _____)

B. The radius of circle C is r = _____.

C. Circle each of the following points that lie on circle C:

(8, -1) (-8, -1) (2, -11) (-6, 5) (12, -1) (7, 10) (10, -7) (2, -1)

3. Answer the following questions regarding the circle C defined by $(x - 5)^2 + (y + 3)^2 = 13$.

A. The center of C is located at the point P = (_____ , _____)

B. The radius of circle C is r = _____.

C. Does the point (8, -1) lie on circle C? Justify your answer.