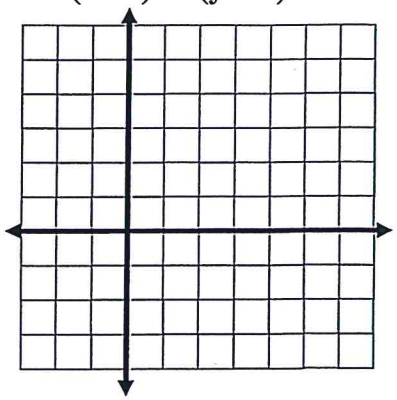
Unit 6 Circle Worksheet **Name** _____ **Hour:** ____

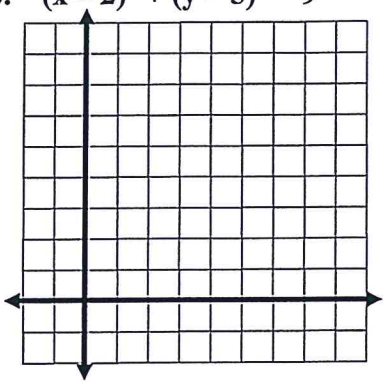
Note: If r^2 is not a perfect square then leave r in simplified radical form but use the decimal equivalent for graphing. Example: $\sqrt{12} = 2\sqrt{3} = 3.46$

1) **Graph the following circle:**

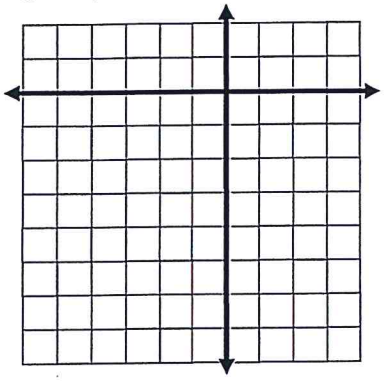
a. $(x - 3)^2 + (y + 1)^2 = 4$



b. $(x - 2)^2 + (y - 5)^2 = 9$



c. $(y + 4)^2 + (x + 2)^2 = 16$



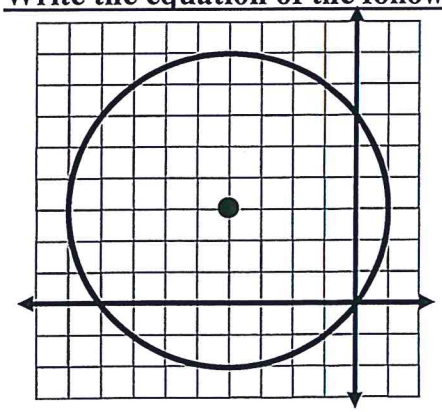
2) **For each circle: Identify its center and radius.**

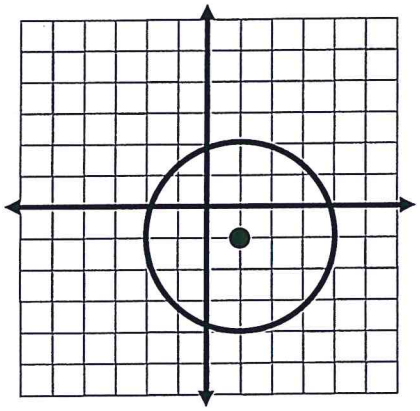
a. $(x + 3)^2 + (y - 1)^2 = 4$ b. $x^2 + (y - 3)^2 = 18$ c. $(y + 8)^2 + (x + 2)^2 = 72$

Center:_____ Center:_____ Center:_____

Radius:_____ Radius:_____ Radius:_____

3) **Write the equation of the following circles:**





4) Give the equation of the circle that is tangent to the y-axis and center is (-3, 2).

5) Give the equation of the circle whose center is (5,-3) and goes through (2,5)

6) Give the equation whose endpoints of a diameter at (-4,1) and (4, -5)

7) Give the equation of the circle whose center is (4,-3) and goes through (1,5)

8) Give the equation whose endpoints of a diameter at (-3,2) and (1, -5)