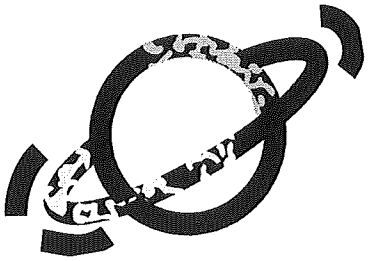
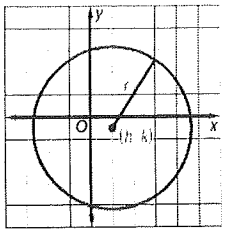
Name: _____

10-8 Equations of Circles: HW#1



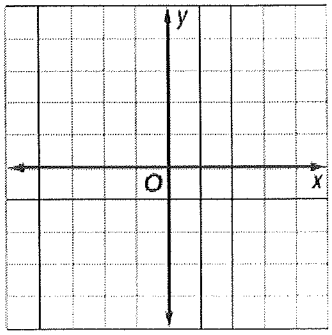
Equation of a Circle A circle is the locus of points in a plane equidistant from a given point. You can use this definition to write an equation of a circle.

Standard Equation of a Circle	An equation for a circle with center at (h, k) and a radius of r units is $(x - h)^2 + (y - k)^2 = r^2$.

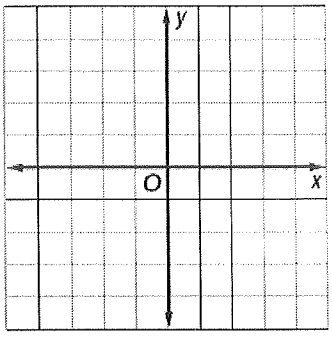


Write the equation for each circle, then graph each.

1. Center at (-1,0), r=4

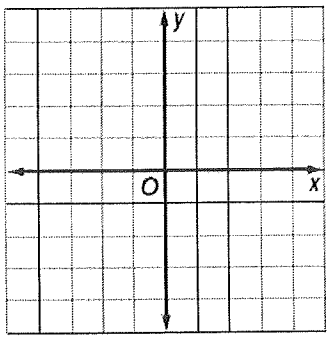


2. Center at (1,-1) , r = 3



Find the center and the radius and graph each equation.

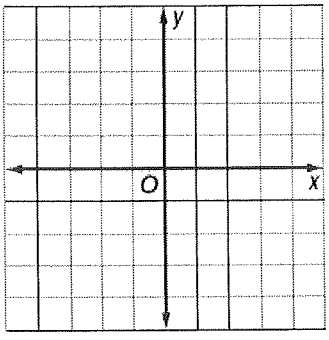
3. $(x-1)^2+(y+2)^2=4$



Center:

r=

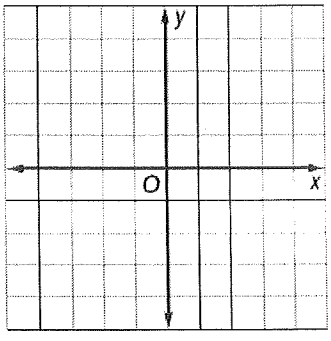
4. $(x+2)^2+(y-1)^2=4$



Center:

r=

5. $x^2+y^2=9$



Center:

r=

NAME _____ DATE _____ PERIOD _____

10-8 Skills Practice

Equations of Circles

Write an equation for each circle.

1. center at origin, $r = 6$

2. center at $(0, 0)$, $r = 2$

3. center at $(4, 3)$, $r = 9$

4. center at $(7, 1)$, $d = 24$

5. center at $(-5, 2)$, $r = 4$

6. center at $(6, -8)$, $d = 10$

7. a circle with center at $(8, 4)$ and a radius with endpoint $(0, 4)$

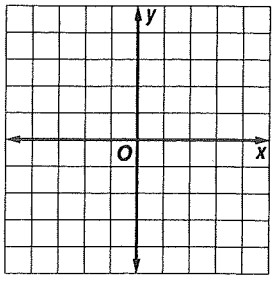
8. a circle with center at $(-2, -7)$ and a radius with endpoint $(0, 7)$

9. a circle with center at $(-3, 9)$ and a radius with endpoint $(1, 9)$

10. a circle whose diameter has endpoints $(-3, 0)$ and $(3, 0)$

Graph each equation.

11. $x^2 + y^2 = 16$



12. $(x - 1)^2 + (y - 4)^2 = 9$