

# 12-5

## Circles in the Coordinate Plane

**Find the center and radius of each circle.**

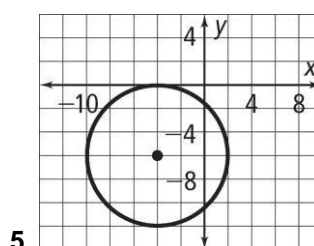
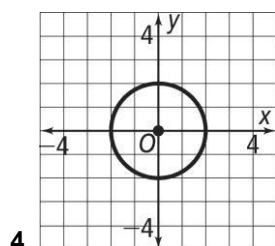
1.  $x^2 + y^2 = 36$

2.  $(x + 3)^2 + (y - 11)^2 = 12$

**Write the standard equation of each circle.**

3. center  $(4, 3)$ ;  $r = 8$

**Write the standard equation of each circle.**



**Write the standard equation of the circle with the given center that passes through the given point.**

6. center  $(0, 0)$ ; point  $(3, 4)$

7. center  $(-4, -3)$ ; point  $(2, 2)$

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

**Write an equation of a circle with diameter  $AB$ .**

8.  $A(0, 0), B(-6, 8)$

9.  $A(7, 5), B(-1, -1)$

10. Find the circumference and area of the circle whose equation is

$$(x - 5)^2 + (y + 4)^2 = 49.$$