

10-2

NAME _____ DATE _____ PERIOD _____

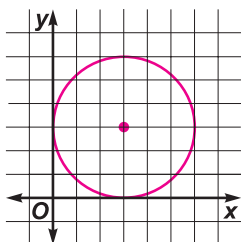
Practice

Circles

Write the standard form of the equation of each circle described. Then graph the equation.

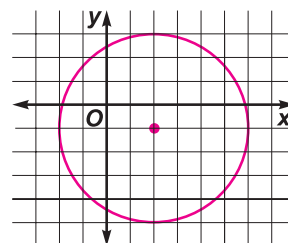
1. center at (3, 3) tangent to the
- x
- axis

$$(x - 3)^2 + (y - 3)^2 = 9$$



2. center at (2, -1), radius 4

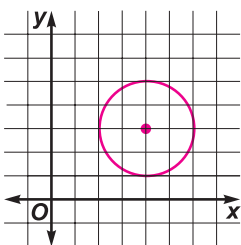
$$(x - 2)^2 + (y + 1)^2 = 16$$



Write the standard form of each equation. Then graph the equation.

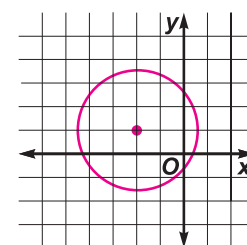
- 3.
- $x^2 + y^2 - 8x - 6y + 21 = 0$

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



- 4.
- $4x^2 + 4y^2 + 16x - 8y - 5 = 0$

$$(x + 2)^2 + (y - 1)^2 = \frac{25}{4}$$



Write the standard form of the equation of the circle that passes through the points with the given coordinates. Then identify the center and radius.

5. (-3, -2), (-2, -3), (-4, -3)

$$(x + 3)^2 + (y + 3)^2 = 1;$$

$$(-3, -3); 1$$

6. (0, -1), (2, -3), (4, -1)

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

$$(2, -1); 2$$

- 7.
- Geometry**
- A square inscribed in a circle and centered at the origin has points at (2, 2), (-2, 2), (2, -2) and (-2, -2). What is the equation of the circle that circumscribes the square?

$$x^2 + y^2 = 8$$