NAME _____ DATE _____ PERIOD _____

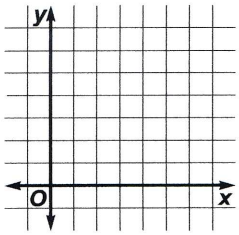
10-2

Practice

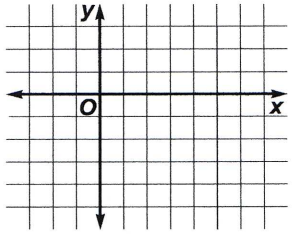
Circles

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

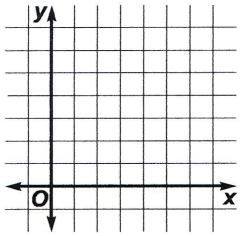


2. center at (2, −1), radius 4

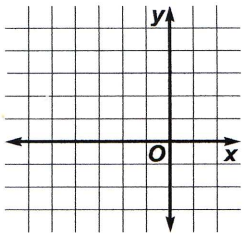


Write the standard form of each equation. Then graph the equation.

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



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



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)

6. (0, −1), (2, −3), (4, −1)

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?