

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

**WRITING EQUATIONS OF CIRCLES**

Find the equation of each circle.

1. _____	center at (-12, -10) and radius 8
2. _____	passes through (2, 2) and has center at (1, 1)
3. _____	A circle has a diameter with endpoints (-3, -2) and (5, -2). Write the equation of the circle.

Rewrite each equation in standard form.

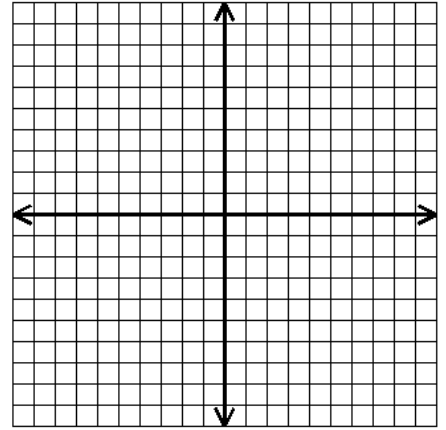
4. _____	$x^2 + y^2 - 6x + 12y + 20 = 0$
5. _____	$x^2 + y^2 - 2x + 2y - 23 = 0$
6. _____	$x^2 + 4x + y^2 - 5 = 0$

7. \_\_\_\_\_

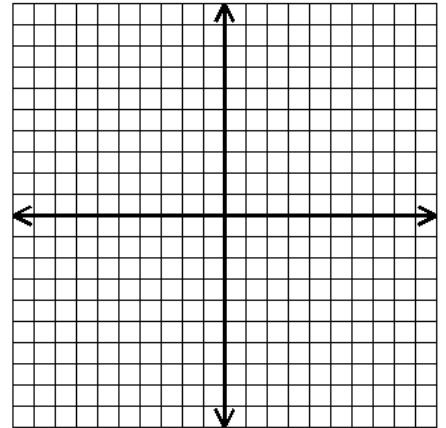
$$2x^2 - 12x + 2y^2 + 24y + 18 = 0$$

**Write the equation of the following circle and graph it.**

8.  $x^2 + y^2 + 8y - 9 = 0$



9. A circle with center at  $(0, 0)$  and a radius of 1 is called the unit circle. Graph the unit circle.



10. Find the equation of the circle with center  $(3, 4)$  that is tangent to the line whose equation is  $y = 2x + 3$ . (*Hint*: 1<sup>st</sup> find the point of tangency)

