ALGEBRA II CHAPTER 7 REVIEW **NAME: _____**

Circles

Find the coordinates of the center and the radius of each circle whose equation is given.

1. $x^2 + (y+6)^2 = 64$

center:_____

radius:_____

2. $(x-9)^2 + y^2 = 36$

center:_____

radius:_____

3. $(x+7)^2+(y-3)^2=80$

center:_____

radius:_____

4. $(x-1)^2 + (y+3)^2 = 9$

center:_____

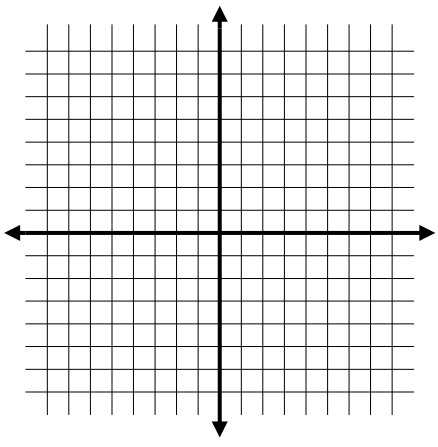
radius:_____

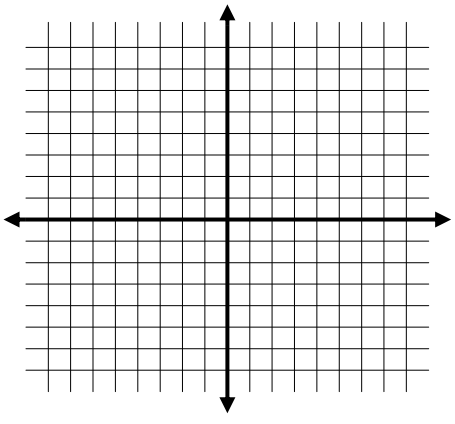
Complete the square and write the standard form of a circle. Graph the equation of the circle.

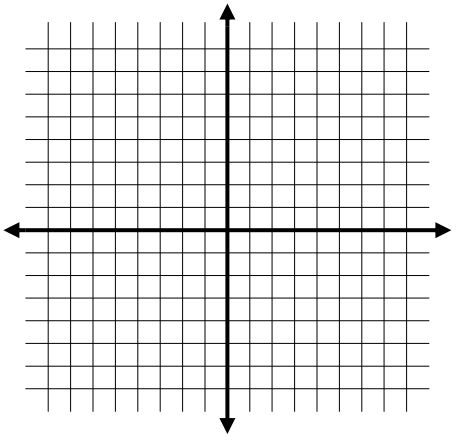
5. $x^2 + y^2 + 6x + 6y + 2 = 0$

6. $x^2 + y^2 + 4y = \frac{33}{4}$

7. $x^2 + y^2 + 2x - 4y + 5 = \frac{29}{4}$







Ellipses

Find the coordinates of the center and the foci, and the lengths of the major and minor axes for each ellipse whose equation is given.

8. $\frac{x^2}{9}+\frac{y^2}{64}=1$

center:_____

foci:_____

major axis:_____

minor axis:_____

9. $\frac{(x+3)^2}{4}+\frac{(y+1)^2}{9}=1$

center:_____

foci:_____

major axis:_____

minor axis:_____

10. $\frac{(x-5)^2}{8}+\frac{(y+2)^2}{9}=1$

center:_____

foci:_____

major axis:_____

minor axis:_____

11. $\frac{(x+1)^2}{25}+\frac{y^2}{100}=1$

center:_____

foci:_____

major axis:_____

minor axis:_____

Complete the square if needed and write the standard form of an ellipse. Then graph it!

12. $\frac{(x+2)^2}{100}+\frac{(y-2)^2}{49}=1$

13. $36x^2 + 16y^2 + 3 = 1299$

14. $4x^2 + 9y^2 + 16x - 18y - 119=0$