Review: Circles and Ellipses Name: _____
Worksheet 5

Put the equation in standard form. If it is a circle, tell the center and radius. If it is an ellipse, tell the center, vertices, co-vertices, and the coordinates of the foci. Sketch the graph.

1. $x^2 + 4x + y^2 = 0$

2. $3x^2 + 3y^2 - 24x - 18y + 63 = 0$

3. $4x^2 + 4y^2 - 16x - 8y - 5 = 0$

4. $5x^2 - 30 = -5y^2$

5. $x^2 + 16y^2 - 10x + 64y + 73 = 0$

6. $9x^2 + y^2 - 54x - 2y = -73$

7. $9x^2 + 16y^2 - 54x + 32y - 47 = 0$

8. $3x^2 + 4y^2 - 24x - 16y = -52$

Tell if the graph of each equation is an ellipse, circle, parabola, or hyperbola.

9. $18x + 12y^2 - 144x - 48y = -120$
10. $5x^2 - 144x - 48y = -120 - 5y^2$
11. $5x^2 - 144x - 48y = -120 + 5y^2$
12. $6x^2 - 144x - 48y = -120 - 5y^2$