## Precalculus Homework Ellipses Day 2

Name\_\_\_\_\_

## Write an equation in general form for each ellipse.

1. Foci at  $(\pm 4, 0)$ ; endpoints of major axis  $(\pm 6, 0)$ 

2. Foci at  $(0,\pm 4)$ ; endpoints of major axis  $(0,\pm 7)$ 

3. Write the equation of the ellipse with a major axis from (-3, 5) to (9, 5) and a minor axis that is 4 units long.

4. Write the equation of the ellipse with a center at (1, -8), a focus at (1, -2), and the end of the major axis at (1,0)



Transform each of the following equations into general form of an ellipse and then graph the ellipse. Then find the distance from the center to the focus point.

5.  $4x^2 + 9y^2 - 16x + 90y + 205 = 0$ 



6.  $4x^2 + 36y^2 + 40x - 288y + 532 = 0$ 



7.  $49x^2 + 16y^2 + 98x - 64y - 671 = 0$ 

