Precaclulus/Trig 3 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circles and Ellipses Notes

Circles

Standard form of the equation of a circle:

Examples:

1. Find the equation of the circle in standard form who center is at the point (2,5) and passes through the point (-1,3).

2. Find the equation of the circle whose diameter has the endpoints (-5, 4) and (1, -4).

3. Find the center and radius of the following circle: 

Ellipse

Foci:

Vertices:

Major Axis:

Minor Axis:

Standard Equation of an Ellipse:

Examples:

1. Find the standard form of the equation of an ellipse whose foci are at (0, 0) and (4, 0) and whose major axis has a length of 8.

2. Find the standard form of the equation of an ellipse whose vertices are at (0, 5) and (0, -5) and whose foci are at (0, 3) and (0,-3).

3. Write the equation of the given ellipse in standard form.

 

4. Find the center, vertices, and foci of the given ellipse.

 

Eccentricity