1. a. Rewrite the equation, , in standard form ().

b. Hence, identify the vertex, focus, axis of symmetry, and directrix.

c. Sketch the graph.

2. Find an equation in standard form () for the ellipse whose major axis endpoints are and and whose minor axis length is 5.

3. What is the equation for an ellipse in standard form with vertices ,and foci ,?

4. Graph and identify the key features: 

Center: (\_\_\_\_\_\_\_,\_\_\_\_\_\_\_)

Vertices: (\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_), (\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_)

Foci: (\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_), (\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_)

The transverse axis: \_\_\_\_\_\_\_\_\_\_\_\_

The conjugate axis: \_\_\_\_\_\_\_\_\_\_\_\_\_

Eccentricity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Equations of the asymptotes:

5. Find the equation of the graph below.

V

F