DATE: _____

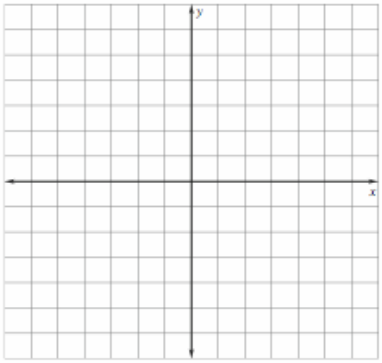
Conics

Non-Calculator

1. Find the vertex, focus and directrix of the parabola: $(x+1)^2 = 12(y-3)$

2. Write the standard form of the equation of the parabola whose vertex is at $(0,2)$ and focus at $(0,5)$.

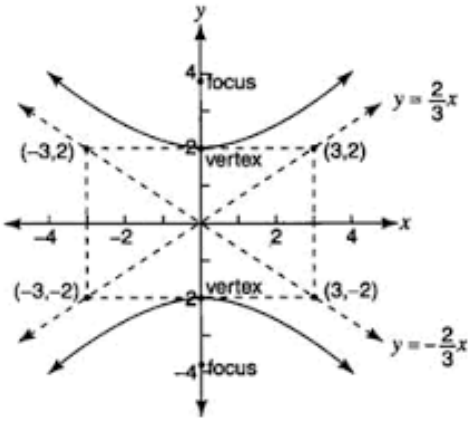
3. Sketch the graph of: $\frac{(x+2)^2}{16} - \frac{(y+1)^2}{9} = 1$.
Label the center, vertices, and foci.
What are the equations of the asymptotes?



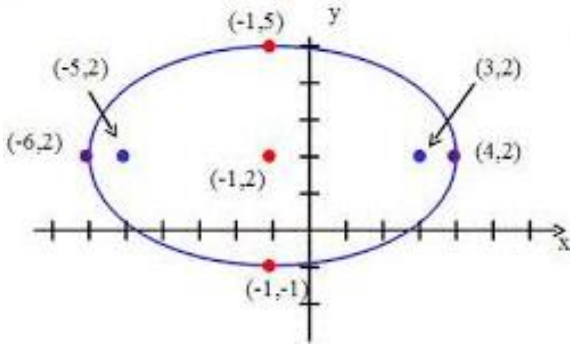
4. Identify the type of conic and find the center, vertices, and foci:

$$\frac{(x-2)^2}{25} + \frac{y^2}{16} = 1$$

5. Write the equation of the conic from the given graph.



6. Write the equation of the conic from the given graph.



Calculator

For each problem, identify the type of conic section and any key features of the conic section.

7. http://www.mathguide.com/cgi-bin/quizmasters/CShyperbolas.cgi

8. $(x+4)^2 + y^2 = 11$

9. $(y+1)^2 = 5(x-3)$

10. http://www.mathguide.com/cgi-bin/quizmasters/CSellipses.cgi