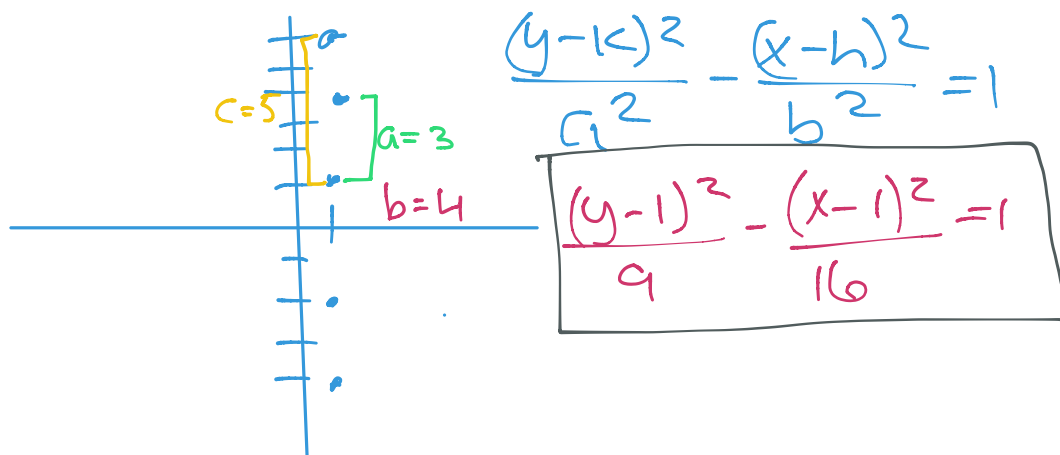


9.3 Hyperbolas

Homework: None *Ch. 9 test Thursday*

Warm-Up: Write $4x^2 - 3y^2 + 8x + 16 = 0$ in standard form. Then, determine what shape it would be (circle, parabola, ellipse, hyperbola).

Example 1: Write the hyperbola in standard form given the center is at $(1, 1)$, the vertices are at $(1, 4)$ and $(1, -2)$, and the foci are at $(1, 6)$ and $(1, -4)$



Example 2: Graph the hyperbola given by $\frac{x^2}{9} - \frac{y^2}{3} = 1$. Be sure to write the coordinates of the center, foci, and the vertices. Additionally, write the equations of the asymptotes.

