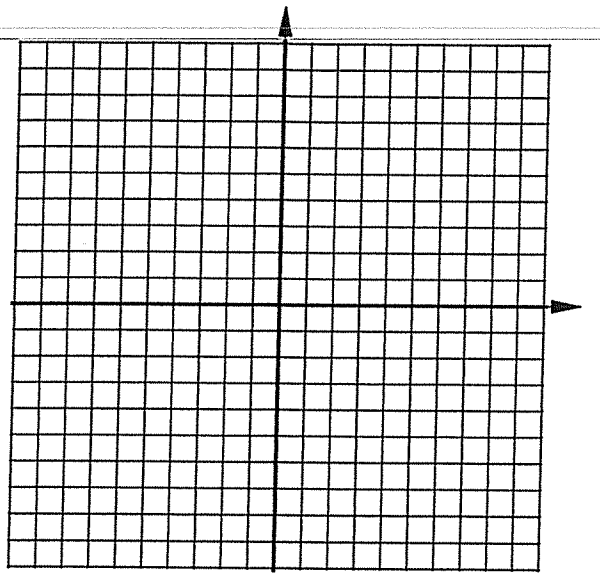
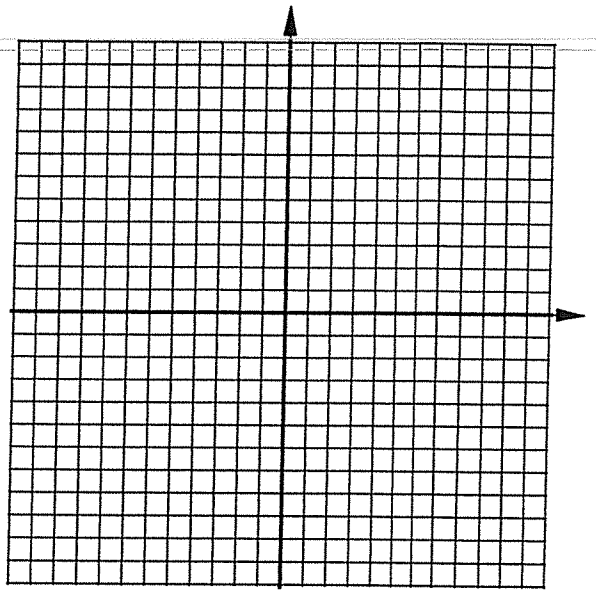
Alg 2B Hwk # 25 Sec 10-5 Fall 2017 Name:

Graph each Hyperbola showing the Vertices and Asymptotes.

1. $\frac{x^2}{25} - \frac{y^2}{4} = 1$



2. $\frac{y^2}{36} - \frac{x^2}{49} = 1$



3. State the slopes of the Asymptotes, the length of the Transverse Axis, and the coordinates of the Vertices and Foci. $\frac{y^2}{121} - \frac{x^2}{64} = 1$ Vertices: Foci:

Slope of Asymptotes: Length of Transverse Axis =

Write the equation of each Hyperbola in Standard Form. The center of each Hyperbola is the origin.

4. Transverse Axis is Horizontal and is 16 units long. A Focus is located at $(-12, 0)$

EQ:

5. The Vertices are at $(0, \pm 5)$ and a Focus is at $(0, 9)$.

EQ:

6. The Transverse Axis is Horizontal and the slopes of the Asymptotes are $\pm\frac{15}{8}$.

EQ:

7. Write the equation of the Hyperbola shown in the graph below. The Asymptotes are shown.