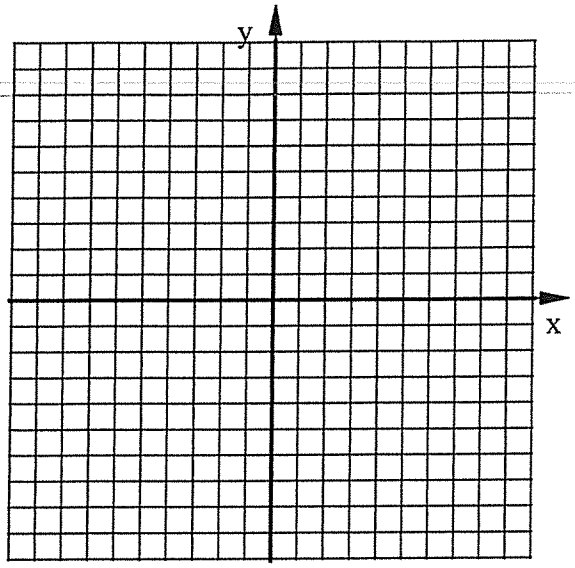
Alg 2B Hwk # 26 Translated Hyperbolas Fall 2017 Name:

1. Graph this Hyperbola showing the Vertices and Asymptotes. $\frac{(x-3)^2}{4} - \frac{(y-1)^2}{9} = 1$



2. State the slopes of the Asymptotes, the length of the Transverse Axis, and the coordinates of the Vertices and Foci. $\frac{(y+5)^2}{49} - \frac{(x-3)^2}{81} = 1$ Vertices: Foci:

Slopes of Asymptotes: m= Length of Transverse Axis =

Write the equation of each Hyperbola in Standard Form.

3. The Center is at $(9,-1)$ the Transverse Axis is Horizontal and the slopes of the Asymptotes are $\pm\frac{7}{5}$.

EQ:

4. The Center is at $(-8,3)$Transverse Axis is Vertical and is 20 units long. A Focus is located at $(-8,17)$

EQ:

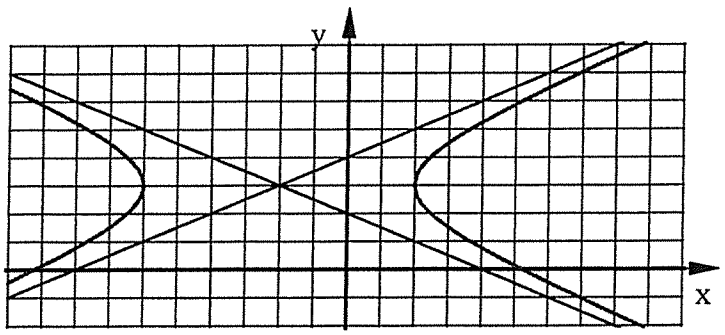
5. The Vertices are at $(6,-4)$ and $(-8,-4)$ and a Focus is at $(-12,-4)$.

EQ:

6. The Foci are at $(3,30)$ and $(3,4)$ slopes of the slopes of the Asymptotes are $\pm\frac{5}{12}$

EQ:

7. Use the graph below. The asymptotes are shown.



EQ: