

Conic Sections CS6: Hyperbolas

For the following hyperbolas, find the following:

1. $\frac{x^2}{25} - \frac{y^2}{9} = 1$

h = _____, k = _____, a = _____, b = _____

Vertices _____

Foci _____

EQ of Asymptotes _____

2. $\frac{(y-3)^2}{100} - \frac{(x+2)^2}{36} = 1$

h = _____, k = _____, a = _____, b = _____

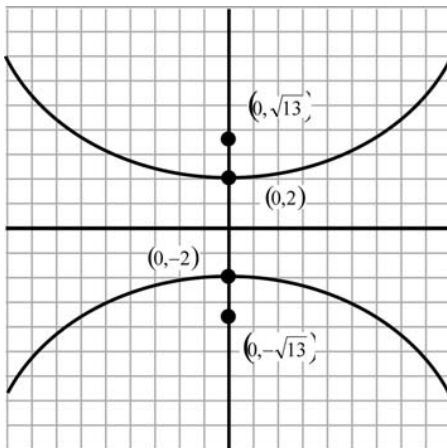
Vertices _____

Foci _____

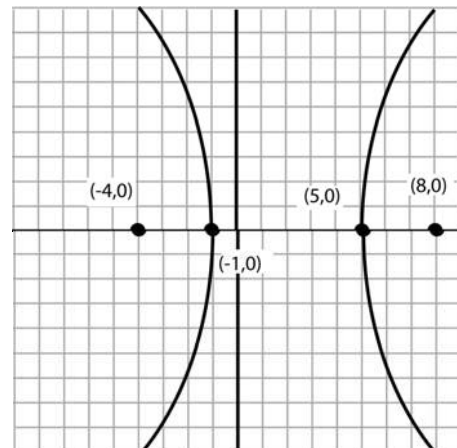
EQ of Asymptotes _____

Write the equation of the hyperbola:

3.

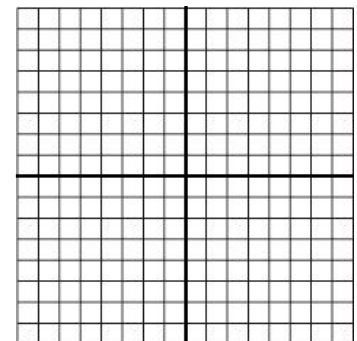


4.



Given the following properties, graph and write an equation for the hyperbolas.

6. The vertices are $(-4, 0)$ and $(4, 0)$, and the conjugate axis has a length of 10 units.



7. The vertices are $(0, 3)$ and $(8, 3)$. The foci are $(-2, 3)$ and $(10, 3)$.

