

Hyperbolas 7-5

Definition of a Hyperbola

Picture

Transverse axis

Conjugate axis

Foci

Vertices

Center

Asymptotes

Standard Equation Form

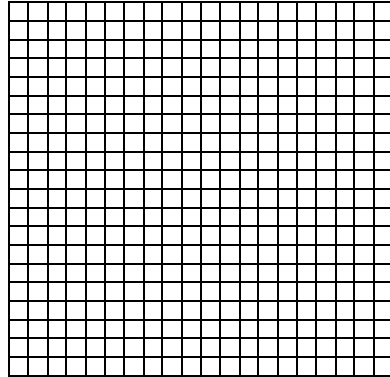
Horizontal Transverse Axis	Vertical Transverse Axis

Center		
Foci		
Distance between Foci		
Vertices		
Equation of Asymptote		

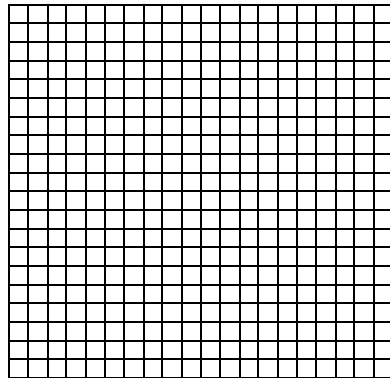
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Find the coordinates of the vertices and the foci and the equation for the asymptotes.
Then graph it.

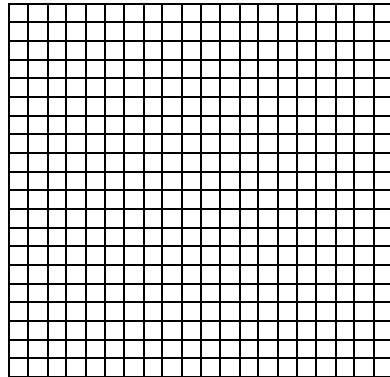
1. $\frac{x^2}{9} + \frac{y^2}{64} = 1$



2. $\frac{(x+3)^2}{4} - \frac{(y+1)^2}{9} = 1$

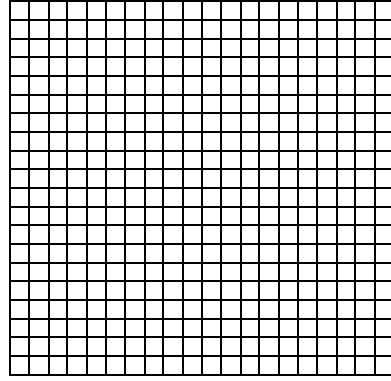


3. $-9x^2 + 16y^2 = 144$



Hyperbolas 7-5

4. $-x^2 + 4y^2 + 24y = -32$



5. $6(x - 3)^2 - 4(y + 1)^2 = 96$

