DIRECTIONS: Identify the center, direction of the transverse axis, verticies, foci, and slopes of asymptotes for the following hyperbolas. Use the back to graph the hyperbola.

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

2. $4x^2 - y^2 = 16$

3. $4x^2 - 9y^2 + 36 = 0$

4. $y^2 = 5x^2 + 25$

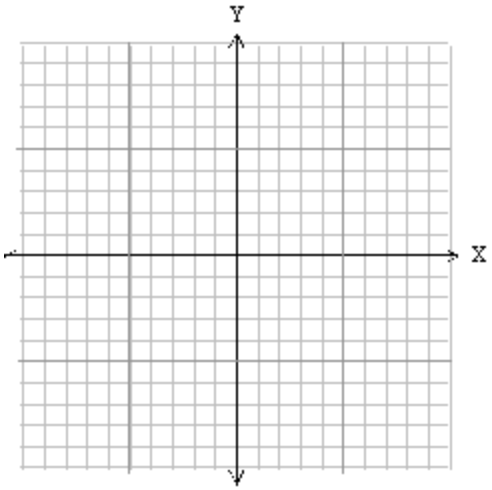
5. $25x^2 - 144y^2 = 3600$

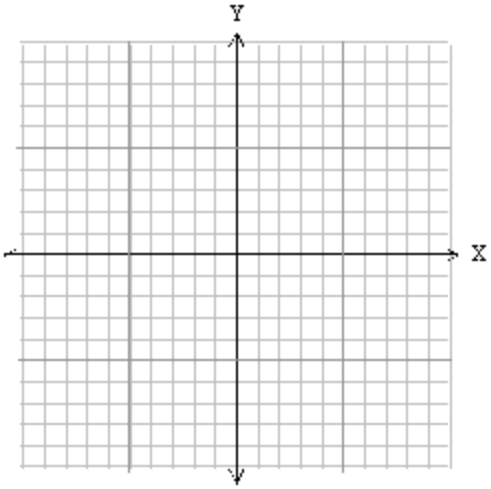
6. $16x^2 - 4y^2 + 64 = 0$

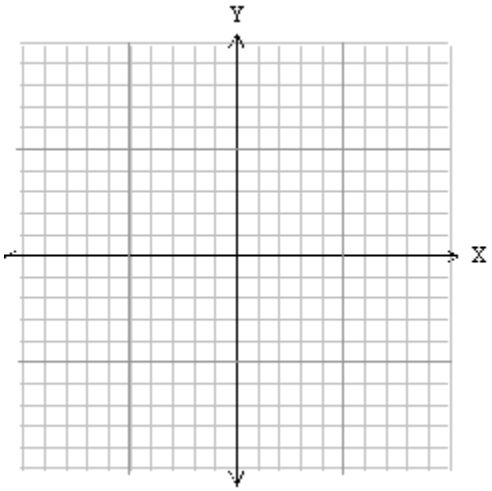
DIRECTIONS: Find an equation of the described hyperbola.

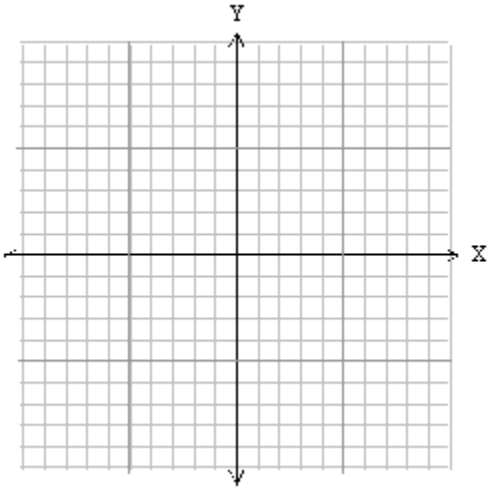
7. Foci: $(0, -8) \& (0, 8)$
Difference of focal radii: 10

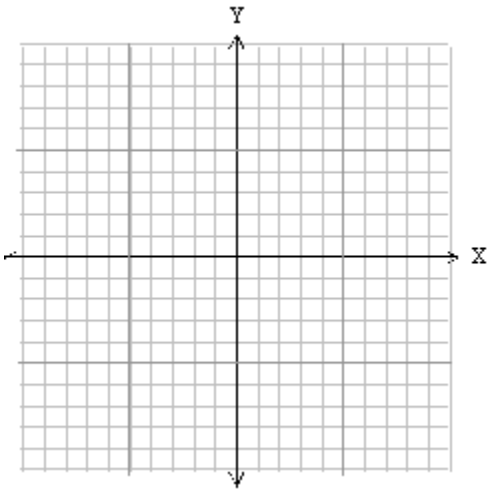
8. Foci: $(-4, 0) \& (4, 0)$
Difference of focal radii: 4

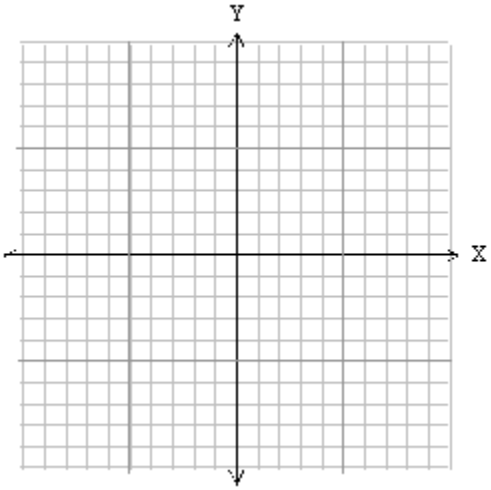

Y
X


Y
X


Y
X


Y
X


Y
X


Y
X