Pre-Calc   **Name** _____
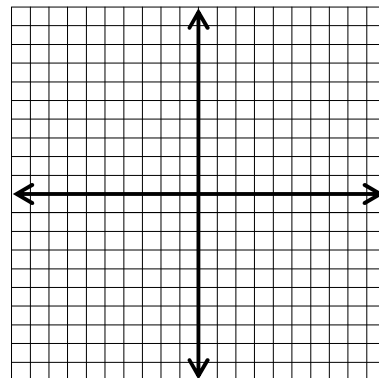**HW – Hyperbolas- Day 2**
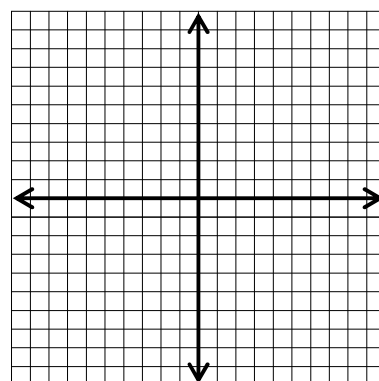
Write an equation in standard form for each hyperbola.
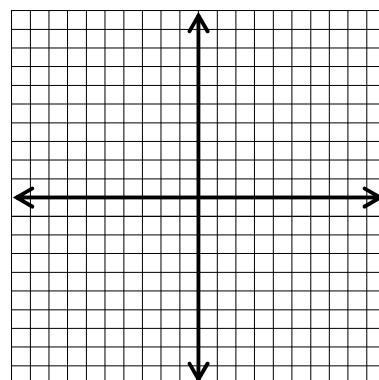
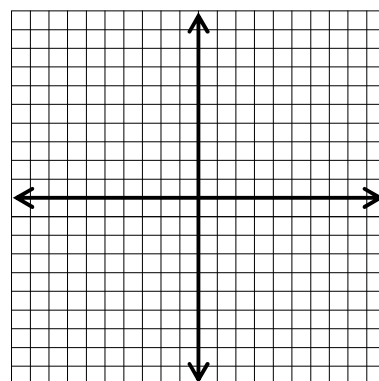1) Foci at (0,5) and (0,-5); endpoints of conjugate axis (6,0) and (-6,0).

2) Foci at (8,0) and (-8,0); endpoints of transverse axis (7,0) and (-7,0).

3) Foci at (6,0) and (-6,0); transverse axis length = 8.

4) The endpoints of the transverse axis are (-3, 4) and (-3, 8) and of the conjugate axis are (-7,6) and (1,6).

5) State the location of the center, the length of the semi-transverse, and semi-conjugate axis, and write in parametric form: $\dfrac{(y-3)^2}{25} - \dfrac{(x+1)^2}{9} = 1$

6) Put the equation into standard form: $4x^2 - 16y^2 + 8x + 128y - 316 = 0$

7) Put the equation into standard form: $9y^2 - 25x^2 - 36y - 150x - 414 = 0$