

Q4 HW1 - All work on looseleaf (or graph paper).

Date_____ Period_____

Identify the center, vertices, co-vertices, and foci of each. Then sketch the graph. Note: co-vertices are another name for the minor axis vertices.

1) $9x^2 + y^2 + 54x + 4y + 76 = 0$

2) $7x^2 + 5y^2 - 14x - 10y - 163 = 0$

Identify the vertices, foci, and asymptotes of each. Then sketch the graph.

3) $\frac{x^2}{25} - \frac{y^2}{25} = 1$

4) $\frac{x^2}{25} - \frac{(y+1)^2}{4} = 1$

5) $(y-3)^2 - (x+3)^2 = 1$

6) $y^2 - \frac{x^2}{25} = 1$

7) $4x^2 - y^2 - 8x - 12 = 0$

8) $9x^2 - 4y^2 + 54x + 8y + 41 = 0$

9) $-4x^2 + y^2 - 24x + 2y - 51 = 0$

10) $16x^2 - 9y^2 + 18y - 153 = 0$

11) $-9x^2 + 25y^2 - 100y - 125 = 0$

12) $-4x^2 + y^2 + 16x - 32 = 0$