

Q4HW4 - All work on looseleaf or graph paper.

Date_____ Period_____

Classify each conic section. Justify your answer.

1) $4x^2 + 4y^2 - 12x - 32y + 37 = 0$

2) $5y^2 + x + 50y + 119 = 0$

3) $100x^2 + 4y^2 + 400x + 12y + 309 = 0$

4) $-4x^2 + 9y^2 - 54y + 45 = 0$

5) $y^2 + x + 6y + 13 = 0$

6) $7x^2 + 3y^2 + 14x - 98 = 0$

7) $x^2 + y^2 + 4x + 8y + 19 = 0$

8) $9x^2 - 4y^2 - 36x + 8y - 4 = 0$

Classify each conic section, write its equation in standard form, and sketch its graph.

9) $x^2 + y^2 - 8x + 8y + 23 = 0$

10) $49x^2 + y^2 + 196x + 147 = 0$

11) $-9x^2 + 16y^2 - 18x - 32y - 137 = 0$

12) $-x^2 - 6x + y - 6 = 0$