

Q4HW2

Date_____ Period_____

Classify each conic section, write its equation in standard form, and sketch its graph. For parabolas, identify the vertex and focus. For circles, identify the center and radius. For ellipses and hyperbolas identify the center, vertices, and foci.

1) $9x^2 + y^2 + 72x + 108 = 0$

2) $2x^2 - 5y^2 - 10y - 55 = 0$

3) $9x^2 + 25y^2 - 50y - 200 = 0$

4) $x^2 + y^2 - 6x + 4y + 4 = 0$

5) $-x^2 + 2x + 3y + 14 = 0$

6) $-4x^2 + y^2 - 16x + 2y - 31 = 0$

7) $-9x^2 + 4y^2 + 36x - 16y - 56 = 0$

8) $x^2 + y^2 - 4x - 4y - 1 = 0$

9) $4x^2 + 25y^2 + 8x + 150y + 129 = 0$

10) $-3x^2 - 36x + y - 102 = 0$