Unit 5 Group Work
PCHA 2022-23 / Dr. Kessner

No calculator! Have fun!

For each of the following equations:

1) Put the equation into standard form and determine the type of conic section.

2) Sketch the graph of the equation.

3) Find the foci (or focus and directrix for parabolas) and the eccentricity. For hyperbolas, find the equations of the asymptotes.

1. $4x^2 - 16x + 9y^2 + 18y - 11 = 0$

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

3. $x + y^2 + 4y + 6 = 0$