MT-A141 Precalculus Worksheet 9.3

Group: _____ Present: _____

1. Put the equation $9x^2 + 4y^2 + 36x - 32y + 64 = 0$ into standard form (the first step is to complete squares in x and y)

   Center of conic: _____

   Endpoints of major axis: _____

   Endpoints of minor axis: _____

   Next solve your equation for y, so that you can graph on your calculator.

   $Y_1 =$ _____ $Y_2 =$ _____

   Viewing window for complete graph: [____, ____] × [____, ____]

   Confirm your graph has the center, and axis endpoints you found earlier.

2. The equation $x^2 - 4xy + 4y^2 - 3x + 2y - 35 = 0$ represents a standard conic section that is rotated and translated. Solve the equation for y, and graph on your calculator. What type of conic section is this? How do you know for certain?

   $Y_1 =$ _____ $Y_2 =$ _____

   Viewing window for complete graph: [____, ____] × [____, ____]

   Conic: _____. Why?: