

Name: _____

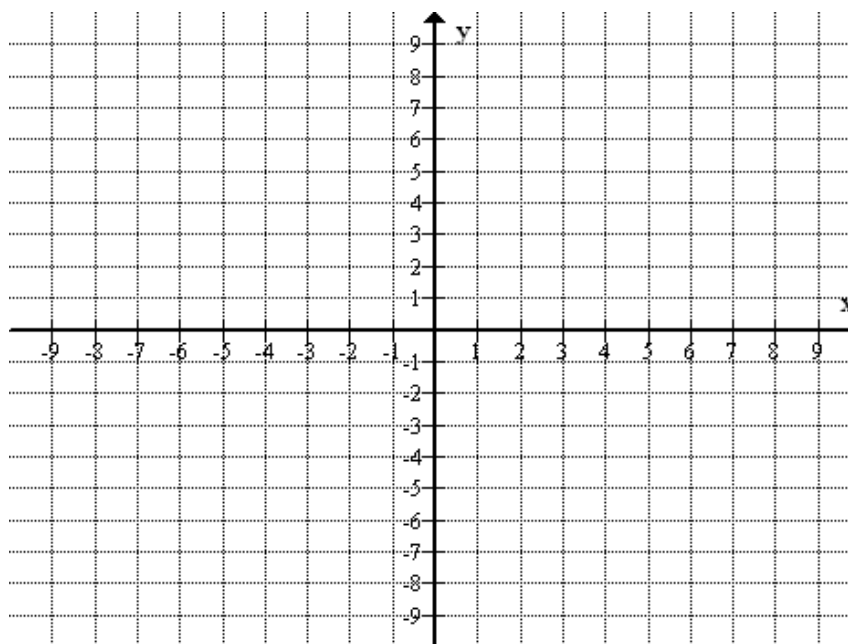
Offline HW 9

This offline assignment is **due Tuesday, 4/3**. No extensions will be given.

The overall look of your paper will count toward your grade. Please graph the conic on the grid provided below. **Submissions on other paper will not be graded.**

This must be **YOUR work**; you are not allowed to ask tutors, friends or family members for help. You **CAN** however consult with your classmates. If you choose to do so, each of you must submit a separate paper and the name of the person(s) with whom you collaborated must be written on this paper. The papers that are **suspiciously identical will receive 0 credit.**

1. Write the equation, in the standard form, of the parabola with the focus at $(4,2)$ and the directrix $y = -2$. Graph the parabola and the directrix. Plot and label the vertex and the focus. **DO NOT PLOT POINTS OTHER THAN FOCUS, VERTEX, THE ENDPOINTS OF LATUS RECTUM.**



2. Write the equation of a parabola in the standard form. Find the coordinates of the vertex , focus and the endpoints of the latus rectum segment; plot and label them on the graph. Write the equation of the directrix. Graph the parabola. DO NOT PLOT POINTS OTHER THAN FOCUS, VERTEX, THE ENDPOINTS OF LATIUS RECTUM.

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

