

### Quiz #11: The Last One!

**Directions:** Please show all your work since partial credit is given. Answers without the necessary work will receive no credit. The quiz is due no later than **Wednesday, May 12, at 12:02 pm.** And remember to have fun!

1. Sketch a graph of the **conic section** given by

$$2y^2 - x^2 - 28y - 8x + 50 = 0.$$

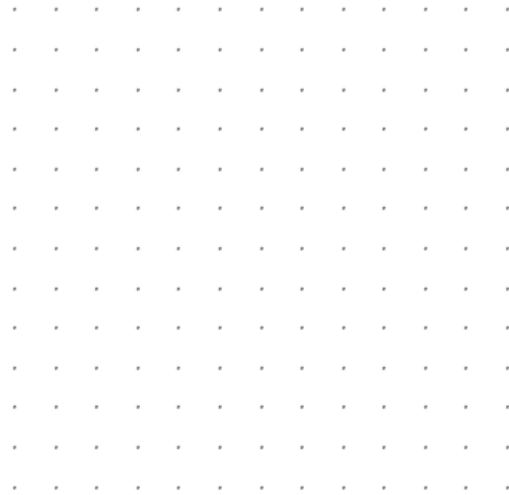
Make sure to label all the characteristics requested below, and include the **asymptotes** in your sketch.



- Center: \_\_\_\_\_
- Vertices: \_\_\_\_\_
- Foci: \_\_\_\_\_
- Transverse Axis: \_\_\_\_\_

2. A parabola has its focus at  $F(-1, -2)$  and directrix at  $y = -6$ .

a) Find the coordinates of the vertex. (It might be helpful to sketch the parabola.)



---

b) Find the equation for the parabola in standard form.

---