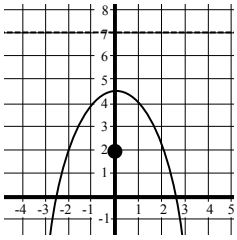
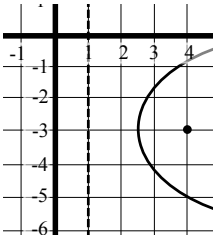
Name: _____ Per.: _____

Looking Ahead: Algebra 2 Unit 10

The questions below are examples of the type of questions you'll see on your **Semester 2 Final**. This is how these tests will ask you to apply your skills from **Unit 10**, as well as your common sense math skills. They are structured in a way that is deliberately complicated, but the skills are the same as what you have learned up to this point.

Semester 2 Final Examples

1.	Determine the equation of the parabola with its focus at (0, 2) and directrix at y = 7. Use the distance formula. 	2.	Determine the equation of the parabola with its focus at (4, -3) and directrix at x = 1. Use the distance formula. 
3.	Graph. $5x^2 - 2y^2 = 20$	4.	Graph. $3x^2 + 4y^2 = 24$
5.	Identify the type of conic section. $\frac{(x+2)^2}{8} + \frac{(y-12)^2}{3} = 1$	6.	Identify the type of conic section. $\frac{(x-7)^2}{19} - \frac{(y+2)^2}{1} = 1$

7.	Write an equation in standard form for an ellipse with center (5, 2), vertex (5, 8), and focus (5, 6).	8.	Write an equation in standard form for an ellipse with center (1, -3), vertex (6, -3), and focus (4, -3).
9.	Write the equation of the circle with a radius of 7 and a center at (3, -14).	10.	Write the equation of the circle with a radius of 2 and a center at (-5, 4).
11.	Identify the type of conic section. $5x^2 - 2y^2 + 30x - 4y + 18 = 0$	12.	Identify the type of conic section. $-6x^2 - 6y^2 - 42x + 7y - 12 = 0$