Show all work on a separate sheet of paper.

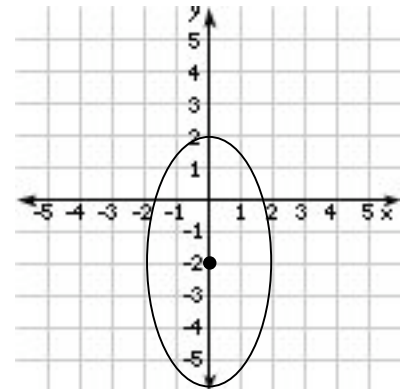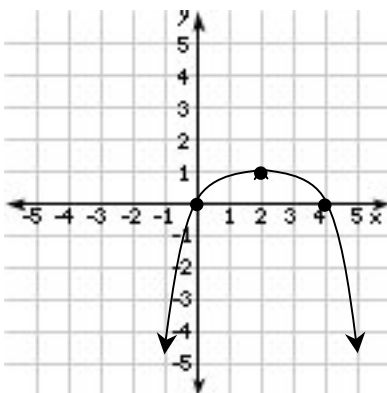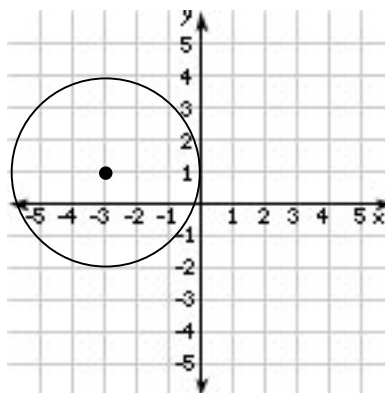|		
1. Graph each parabola. Identify the critical features (vertex, focus and equation for the directrix): a) $y - 3 = \frac{1}{4}(x + 2)^2$ b) $x = -\frac{1}{8}(y - 2)^2 - 5$ c) $16y - 32 = x^2$	2. Graph each circle. Identify the coordinates of the center. a) $(x - 3)^2 + (y + 6)^2 = 4$ b) $x^2 + (y - 1)^2 = 16$ c) $(x - 7)^2 + (y - 5)^2 = 81$	3. Graph each ellipse. Identify the coordinates of the center, the vertices and the foci. a) $\frac{(x - 1)}{4} + \frac{(y + 6)}{9} = 1$ b) $\frac{(x + 2)^2}{16} + \frac{(y - 3)^2}{1} = 1$ c) $\frac{(y - 3)^2}{81} + \frac{(x - 5)^2}{36} = 1$
4. Graph each hyperbola. Identify the coordinates of the center, vertices and foci. a) $\frac{(x - 3)^2}{4} - \frac{(y - 4)^2}{4} = 1$ b) $\frac{(y + 2)^2}{9} - \frac{(x - 1)^2}{16} = 1$	5. Complete the square to get each conic so that it is in standard form. Identify its shape (circle, ellipse, hyperbola or parabola) a) $x^2 + y^2 - 4x + 10y = -20$ b) $x^2 - 8x + 4y^2 - 16y = -28$ c) $x^2 - 6x - 4y + 5 = 0$	6. Write the equation in standard form for the conic shown below:
7. Write the equation in standard form for the conic shown below: 	8. Write the equation in standard form for the conic shown below: 	9. Write the equation in standard form for the conic shown below: