8.06b Parabolas and Circles Review WS #2

1. Identify the characteristics of the parabola. Graph and label all parts.
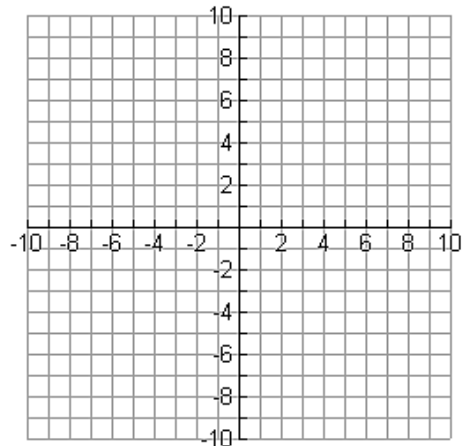 $(y - 2)^2 = -16(x + 3)$

p = _____

Vertex: _____

Focus: _____

Directrix: _____

Axis of Symmetry: _____

Focal Width: _____

2. Write the equation of the parabola $x^2 - 4x + 8y - 13 = 39$ in standard form. Identify the vertex, focus, directrix, axis of symmetry, and focal width. Graph the parabola and label all parts.

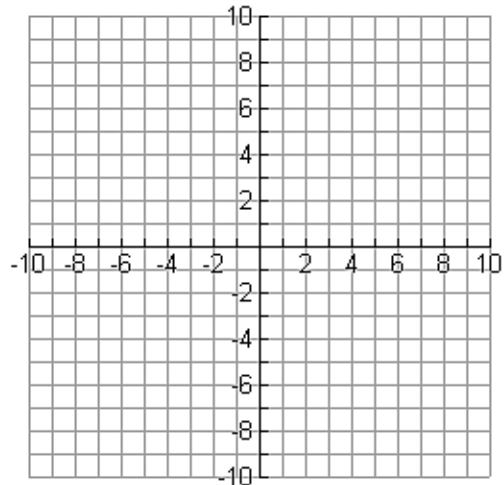Standard Form: _____

p = _____

Vertex: _____

Focus: _____

Directrix: _____

Axis of Symmetry: _____

Focal Width: _____

3. Write the standard form of the equation for the parabola with a focus at (2,1) and directrix at $x = -2$ Identify its characteristics. Graph the parabola and label all parts.
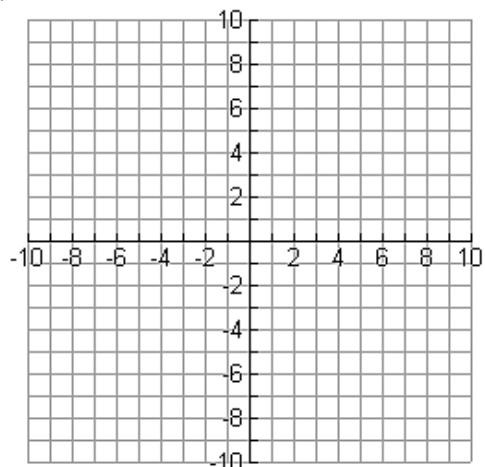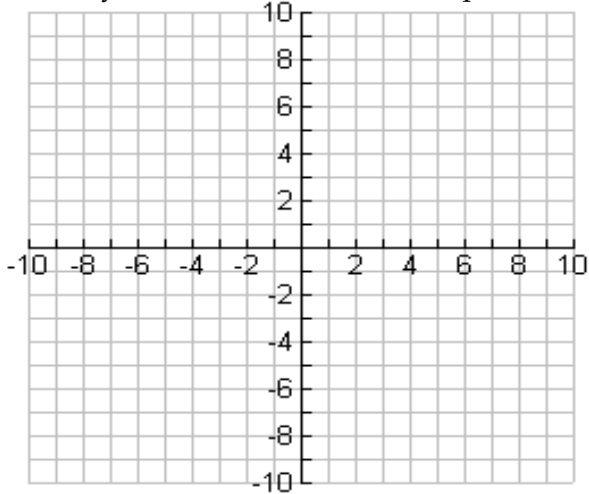
Standard Form: _____

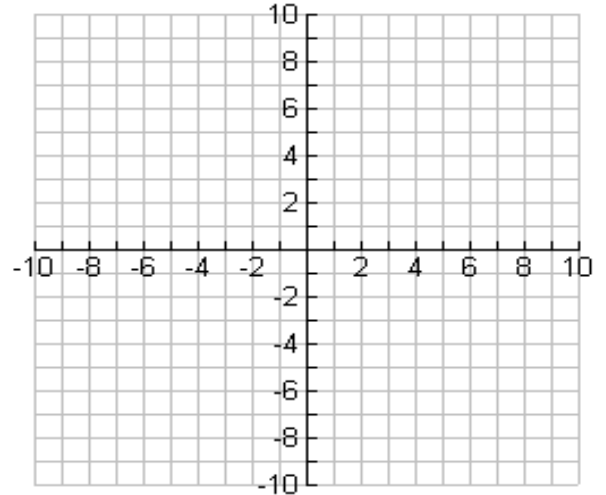p = _____

Vertex: _____

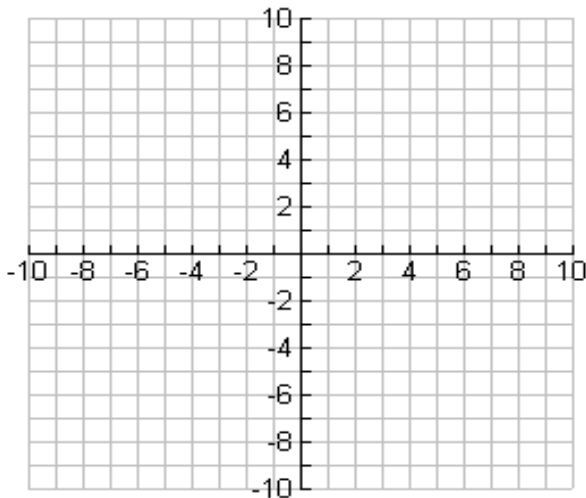Directrix: _____

Axis of Symmetry: _____

4. Use the equation $x^2 + (y - 1)^2 = 4$ and Identify the center and radius. Graph the circle.

5. Write the equation of a circle with center $(1, 3)$ and radius=$\sqrt{12}$. Graph the circle.

6. Given a circle with center $(3,6)$, draw a circle that is tangent to $y = 2$, then write the equation of the circle.

7. Put the equation of the circle into standard form. Identify the center and radius.
$$x^2 + y^2 + 14x = 2y - 41$$

8. Find the equation of a circle whose center is at $(0, -8)$ and contains the point $(2, -5)$.

9. Find the equation of a circle whose diameter has endpoints at $(-13,-7)$ and $(11, 11)$.