

8.06c Parabolas and Circles Review WS #3

1. Identify the characteristics of the parabola. Graph and label all parts.

$$(y - 1)^2 = -8x$$

$p =$ _____

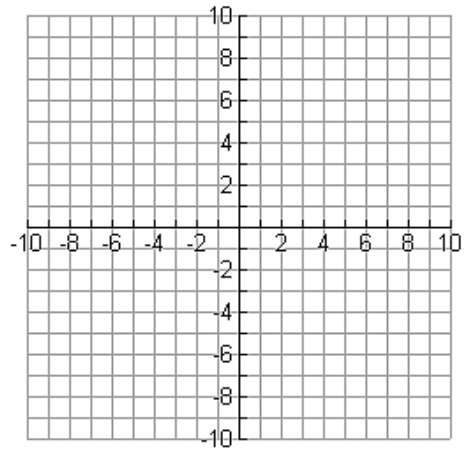
Vertex: _____

Focus: _____

Directrix: _____

Axis of Symmetry: _____

Focal Width: _____



2. Write the equation of the parabola $y^2 - 8y + 4x = 12$ in standard form. Identify the vertex, focus, directrix, axis of symmetry, and focal width. Graph the parabola and label all parts.

Standard Form: _____

$p =$ _____

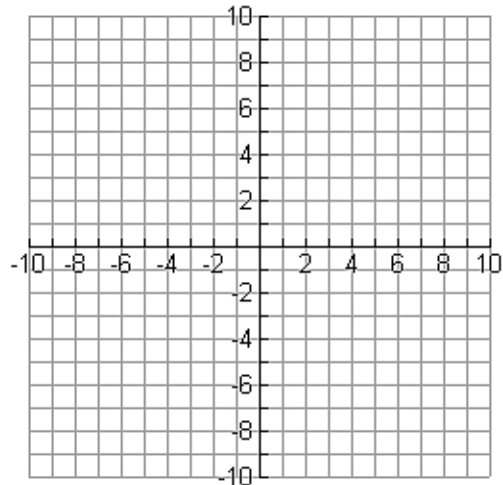
Vertex: _____

Focus: _____

Directrix: _____

Axis of Symmetry: _____

Focal Width: _____



3. Write the standard form of the equation for the parabola with a vertex at $(3,1)$ and directrix at $x = 5$. Identify its characteristics. Graph the parabola and label all parts.

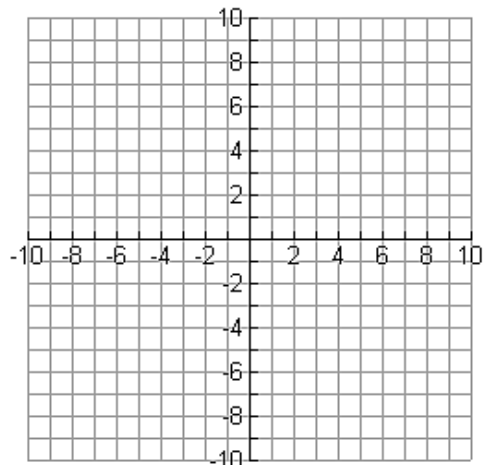
Standard Form: _____

$p =$ _____

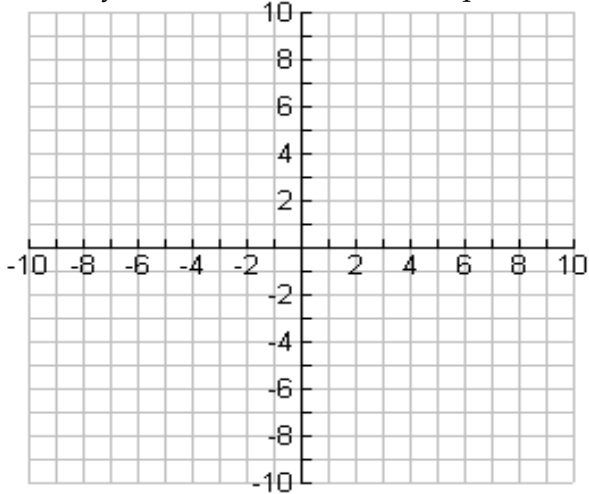
Vertex: _____

Directrix: _____

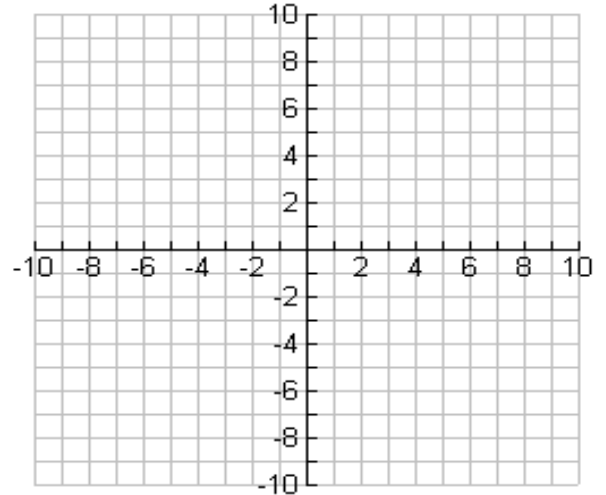
Axis of Symmetry: _____



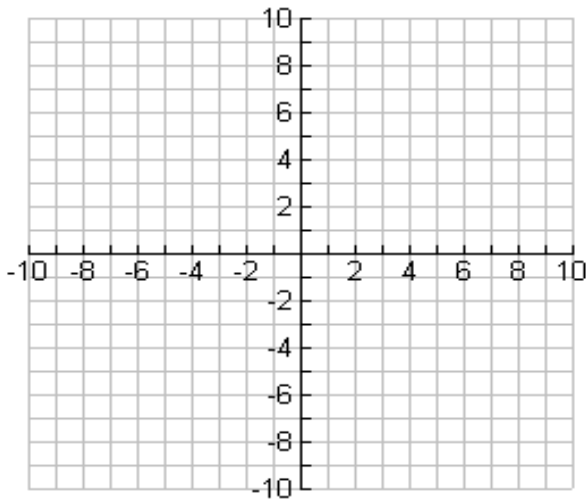
4. Use the equation $(x - 3)^2 + (y - 5)^2 = 26$ and Identify the center and radius. Graph the circle.



5. Write the equation of a circle with center $(-2, -5)$ and radius $=\sqrt{17}$. Graph the circle.



6. Given a circle with center $(3,6)$, draw a circle that is tangent to $x = 8$, then write the equation of the circle.



7. Put the equation of the circle into standard form. Identify the center and radius.
 $x^2 + y^2 - 8x - 4y - 5 = 0$

8. Find the equation of a circle whose center is at $(5, 9)$ and contains the point $(7, 8)$.

9. Find the equation of a circle whose diameter has endpoints at $(-5, -8)$ and $(7, 2)$.