Determine the vertex, the p value, the direction of opening, the focus, the equation for the directrix, and the equation for the axis of symmetry. Graph the vertex, the focus, the directrix, the axis of symmetry, as well as two additional points to complete the graph. Any non-integer values should be written as reduced fractions. **No decimals!!**

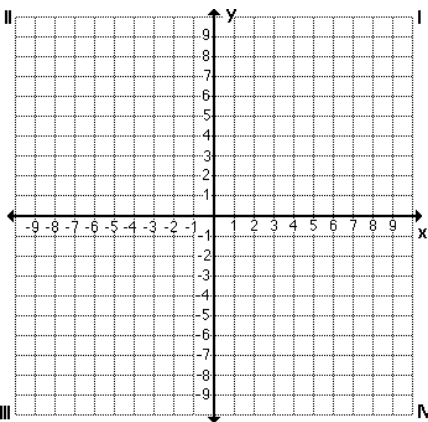| 1. $x^2 = -4y$	2. $y^2 = 7x$	3. $8y + x^2 = 0$
Vertex $(\quad , \quad)$	Vertex $(\quad , \quad)$	Vertex $(\quad , \quad)$
$p = $ _____	$p = $ _____	$p = $ _____
Opens _____	Opens _____	Opens _____
Focus $(\quad , \quad)$	Focus $(\quad , \quad)$	Focus $(\quad , \quad)$
Directrix _____	Directrix _____	Directrix _____
Axis of Symmetry _____	Axis of Symmetry _____	Axis of Symmetry _____

x	y

x	y

x	y

Determine the vertex, the *p* value, the direction of opening, the focus, the equation for the directrix, and the equation for the axis of symmetry. Graph the vertex, the focus, the directrix, the axis of symmetry, as well as two additional points to complete the graph. Any non-integer values should be written as reduced fractions. **No decimals!!**
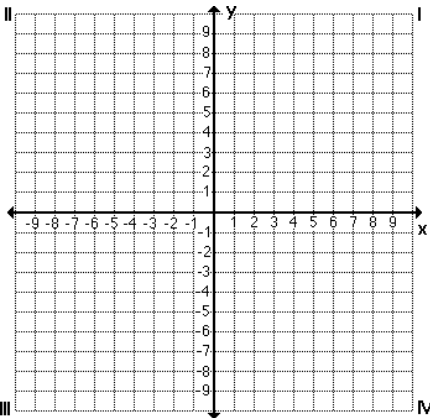
4. $y^2 - 6x = 0$	5. $(x-6)^2 = -24(y+1)$	6. $(y-2)^2 = -3(x-7)$
Vertex $(\quad,\quad)$	Vertex $(\quad,\quad)$	Vertex $(\quad,\quad)$
$p =$ _____	$p =$ _____	$p =$ _____
Opens _____	Opens _____	Opens _____
Focus $(\quad,\quad)$	Focus $(\quad,\quad)$	Focus $(\quad,\quad)$
Directrix _____	Directrix _____	Directrix _____
Axis of Symmetry _____	Axis of Symmetry _____	Axis of Symmetry _____

x	y
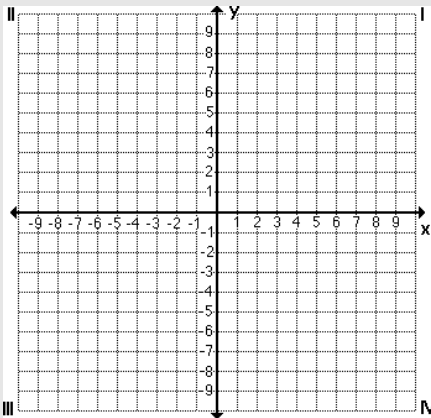
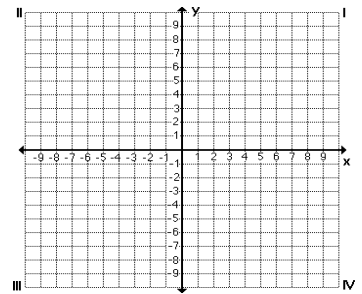| x	y

x	y
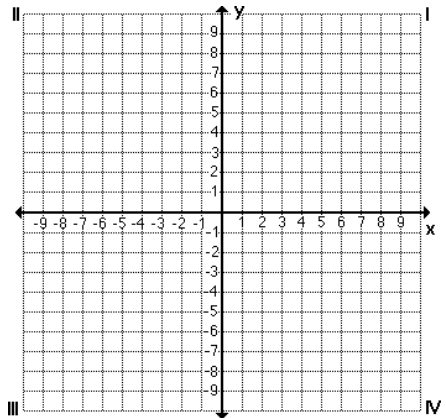
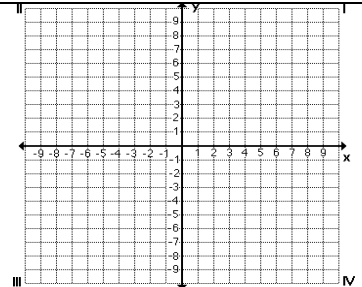| Write the standard form of the equation of the parabola with the given focus and vertex at $(0, 0)$. |
|---|

7. $(2, 0)$
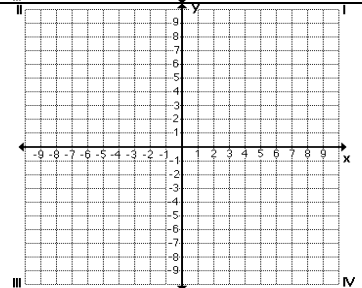
Standard Form: _____

8. $(0, -5)$

Standard Form: _____

9. $\left(\dfrac{3}{4}, 0\right)$

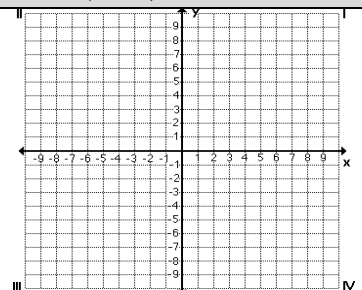Standard Form: _____

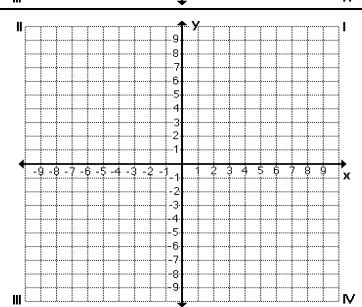| Write the standard form of the equation of the parabola with the given directrix and vertex at $(0, 0)$. |
|---|

10. $x = -4$

Standard Form: _____

11. $y = 3$

Standard Form: _____

12. $y = \dfrac{2}{5}$

Standard Form: _____