

Name: _____

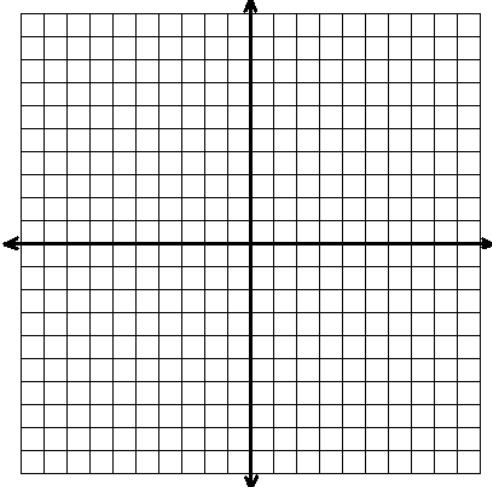
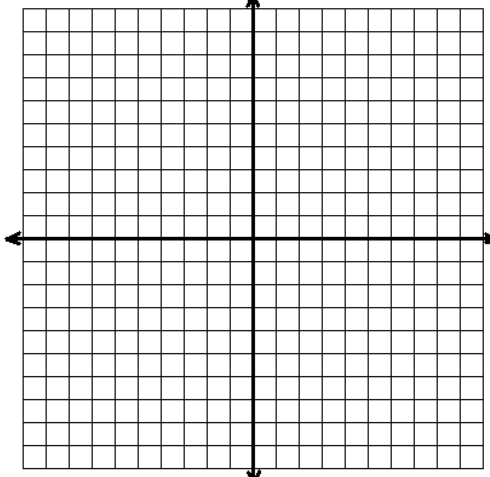
Date: _____

Quadratic Equations

Class: **Algebra**

Topic: **Quadratic-Linear Systems**

Model Solve each system graphically and algebraically.

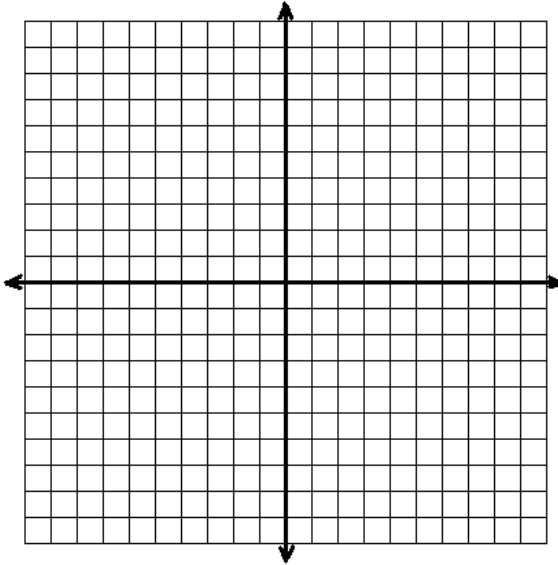
Graphically	Algebraically
<p>On the set of axes below, solve the following system of equations graphically for all values of x and y. State the coordinates of all solutions.</p> $y = x^2 + 4x - 5$ $y = 2x + 3$ 	
<p>Solve the following system of equations:</p> $y = x^2 + 4x + 1$ $y = 5x + 3$ <p>[The use of the grid is optional.]</p> 	<p>Solve Algebraically.</p>

CFU_Think-Pair-Share_ Solve each system graphically and algebraically.

On the set of axes below, solve the following system of equations graphically for all values of x and y .

$$y = -x^2 - 4x + 12$$

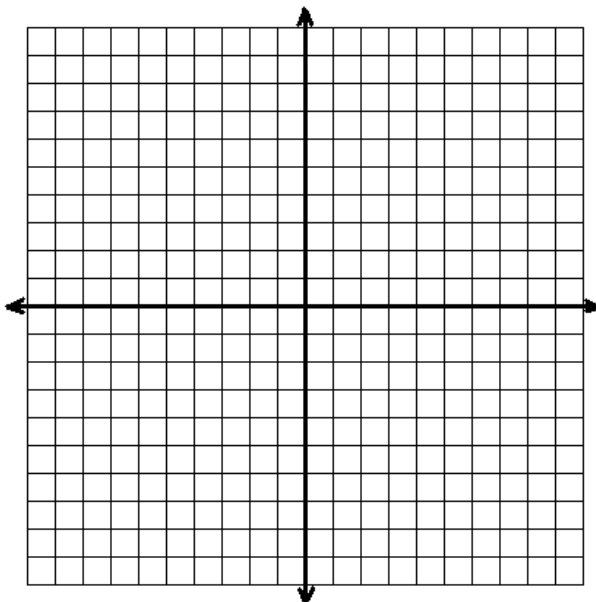
$$y = -2x + 4$$



On the set of axes below, solve the following system of equations graphically for all values of x and y .

$$y = x^2 - 6x + 1$$

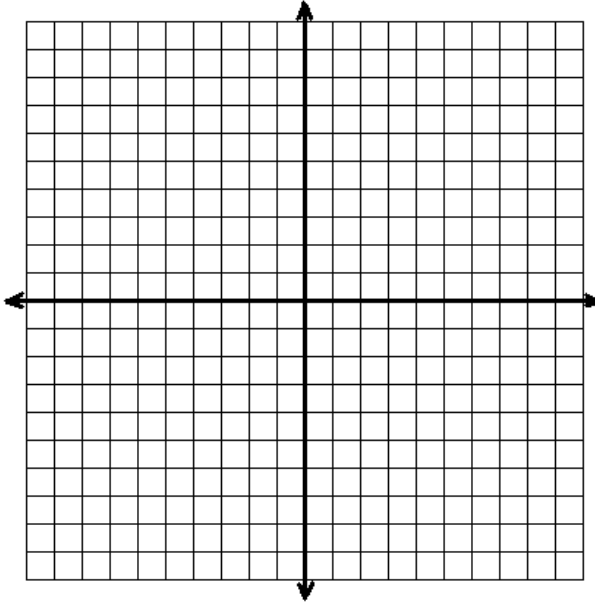
$$y + 2x = 6$$



Independent Practice

On the set of axes below, solve the following system of equations graphically and state the coordinates of all points in the solution.

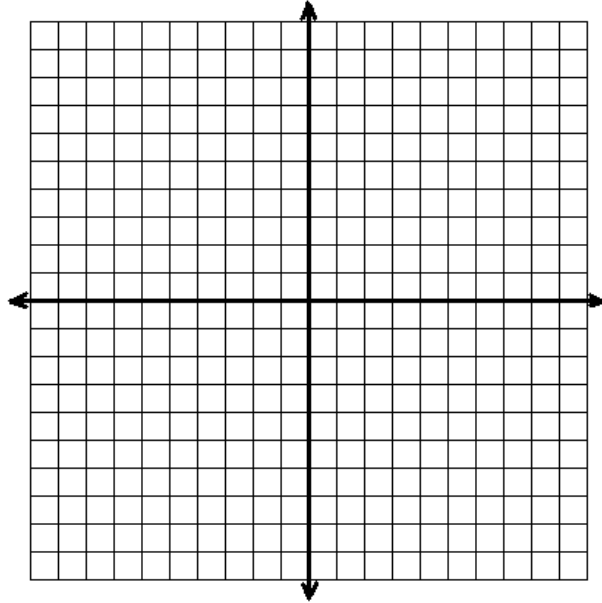
$$y = x^2 + 4x + 2$$
$$y - 2x = 5$$



Solution: _____

Solve the following system of equations graphically. State the coordinates of all points in the solution.

$$y + 4x = x^2 + 5$$
$$x + y = 5$$

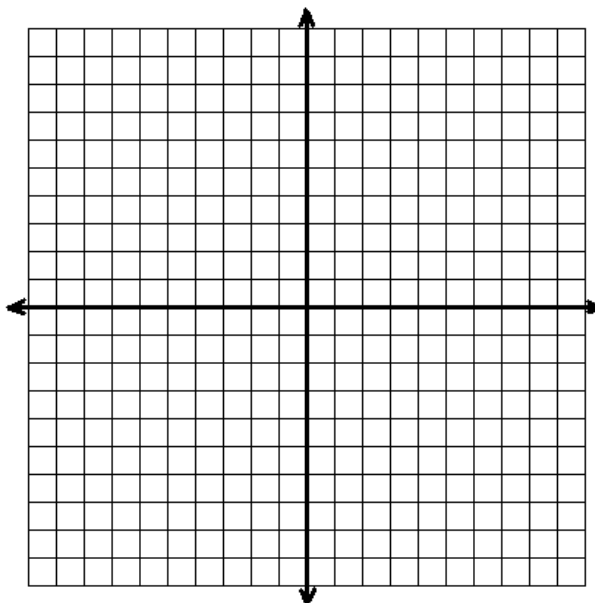


Solution: _____

On the set of axes below, graph the following system of equations.

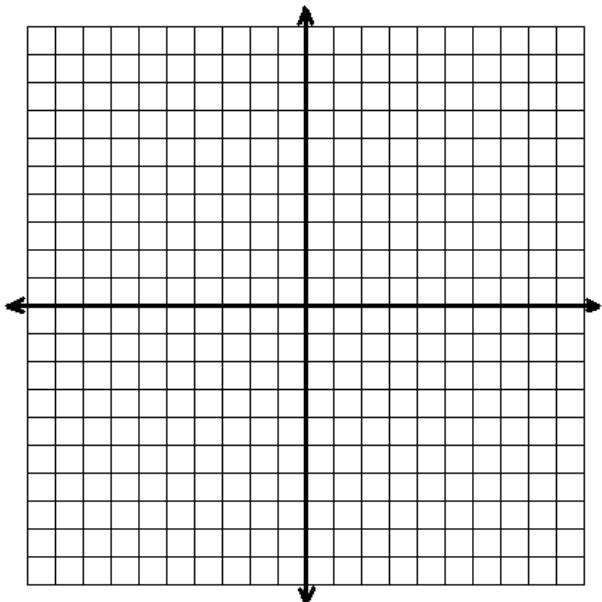
$$y + 2x = x^2 + 4$$
$$y - x = 4$$

Using the graph, determine and state the coordinates of *all* points in the solution set for the system of equations.



Solve the following system of equations graphically.

$$2x^2 - 4x = y + 1$$
$$x + y = 1$$

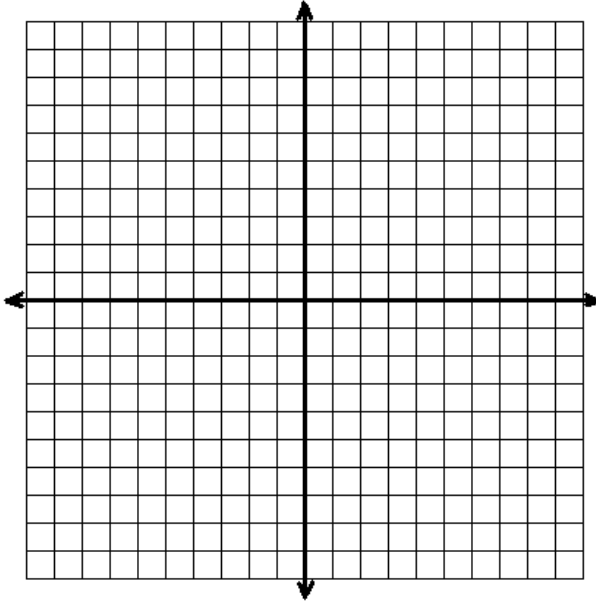


Solution: _____

On the set of axes below, solve the following system of equations graphically for all values of x and y .

$$y = (x - 2)^2 + 4$$

$$4x + 2y = 14$$



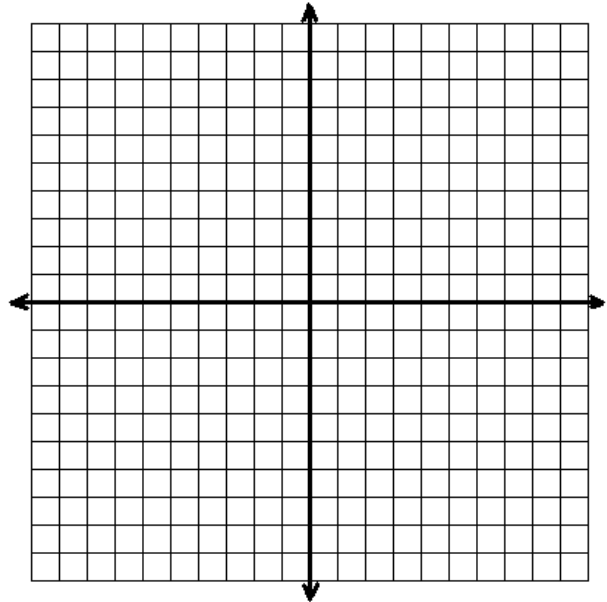
Solution: _____

Solution: _____

On the set of axes below, solve the system of equations graphically and state the coordinates of all points in the solution.

$$y = (x - 2)^2 - 3$$

$$2y + 16 = 4x$$



Solution: _____

A rocket is launched from the ground and follows a parabolic path represented by the equation $y = -x^2 + 10x$. At the same time, a flare is launched from a height of 10 feet and follows a straight path represented by the equation $y = -x + 10$. Using the accompanying set of axes, graph the equations that represent the paths of the rocket and the flare, and find the coordinates of the point or points where the paths intersect.

