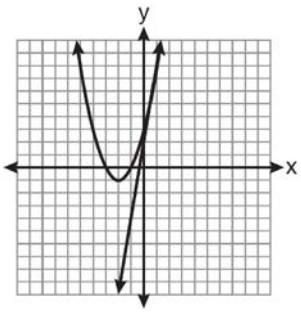
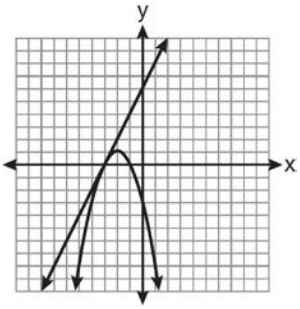
A.G.9: Quadratic-Linear Systems 1:Solve systems of linear and quadratic equations graphically

1 Which graph could be used to find the solution of the system of equations $y = 2x + 6$ and $y = x^2 + 4x + 3$?

1)


2)


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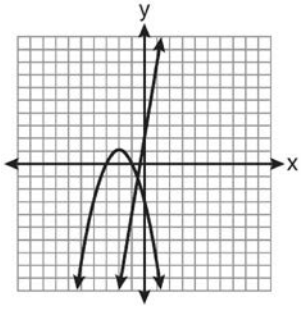

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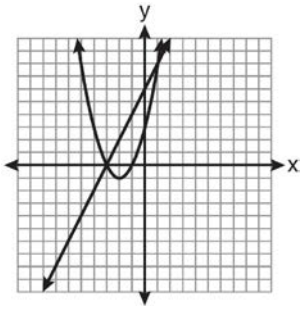
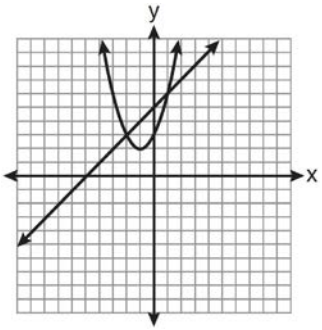
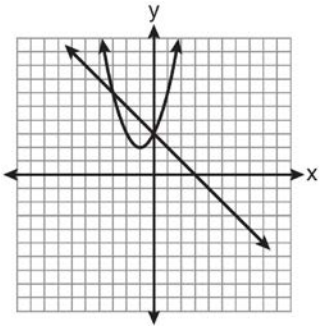
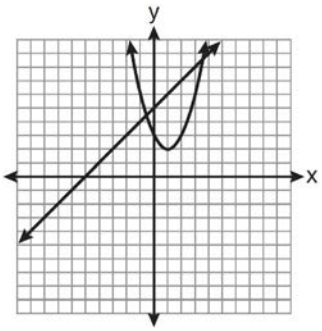


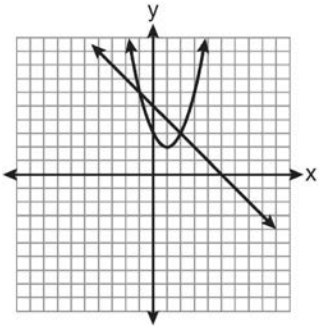
2 Which graph can be used to find the solution of the following system of equations?

$$y = x^2 + 2x + 3$$
$$2y - 2x = 10$$

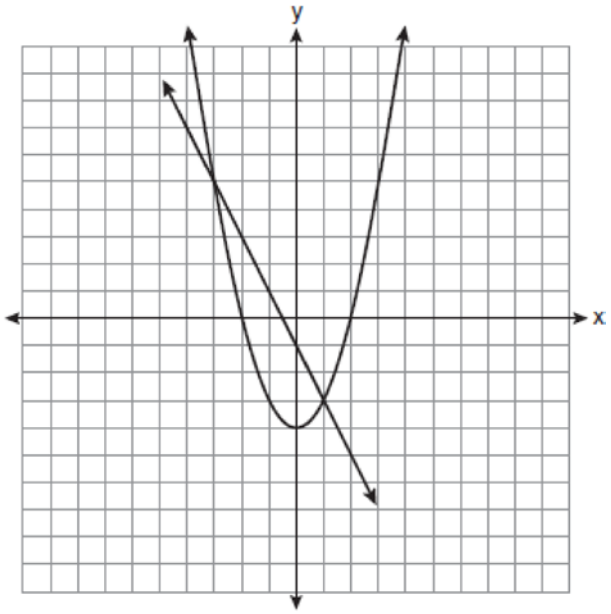
1)


2)


3)


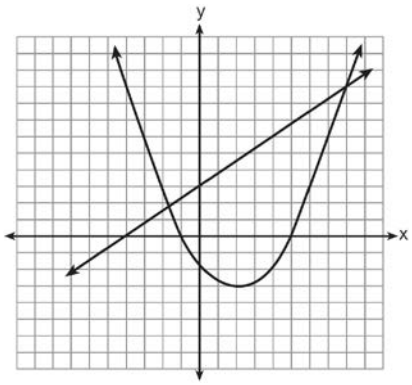
4)


3 Which ordered pair is a solution of the system of equations shown in the graph below?



1) $(-3, 1)$
2) $(-3, 5)$
3) $(0, -1)$
4) $(0, -4)$

4 Two equations were graphed on the set of axes below.



Which point is a solution of the system of equations shown on the graph?

1) $(8, 9)$
2) $(5, 0)$
3) $(0, 3)$
4) $(2, -3)$

5 How many solutions are there for the following system of equations?

$$y = x^2 - 5x + 3$$

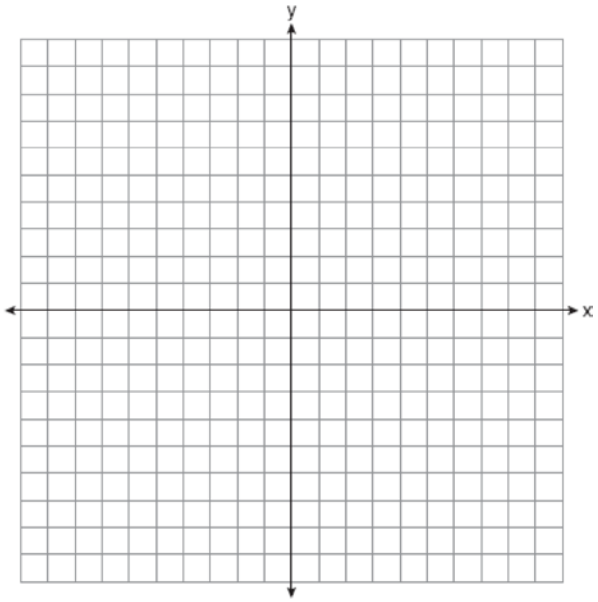
$$y = x - 6$$

1) 1
2) 2
3) 3
4) 0

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

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

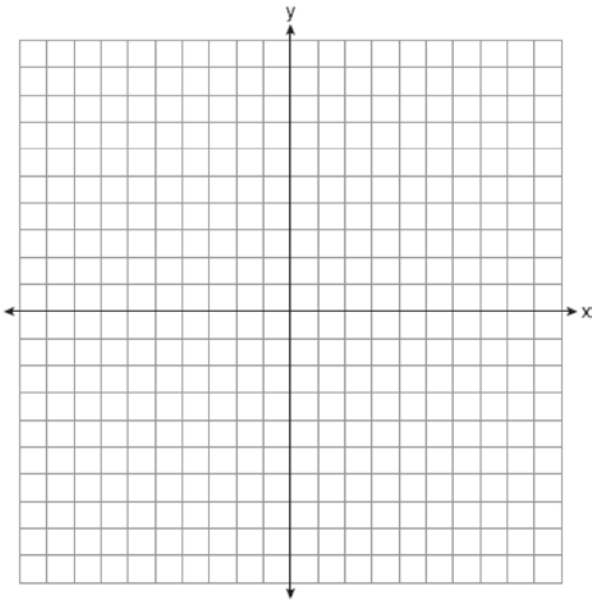
$$y = x - 1$$



7 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.

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

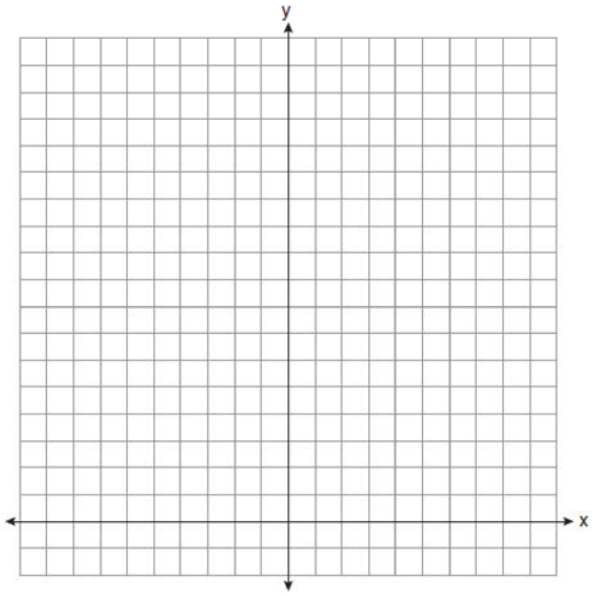
$$y = 2x + 3$$



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

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

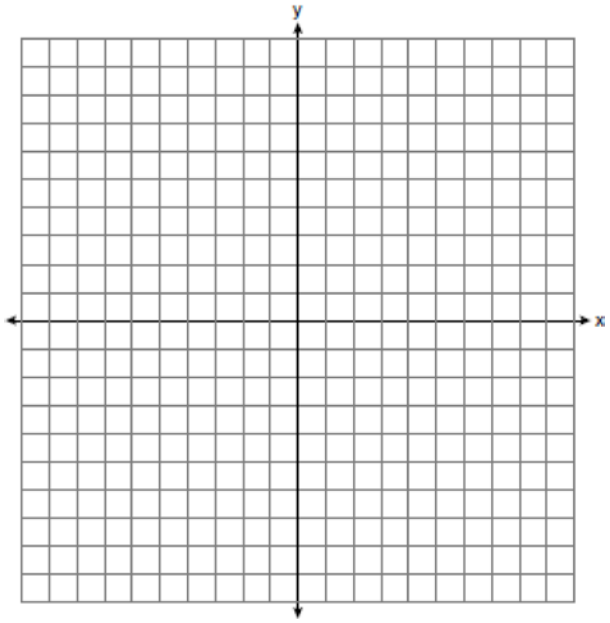
$$y = -2x + 4$$



9 Solve the following systems of equations graphically, on the set of axes below, and state the coordinates of the point(s) in the solution set.

$$y = x^2 - 6x + 5$$

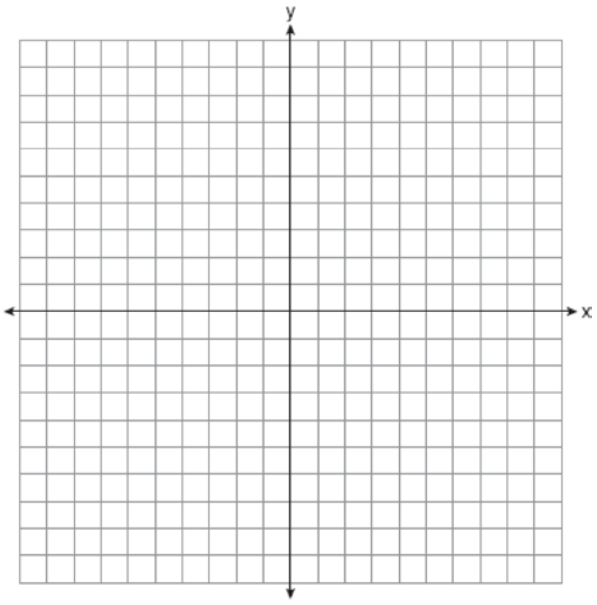
$$2x + y = 5$$



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

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

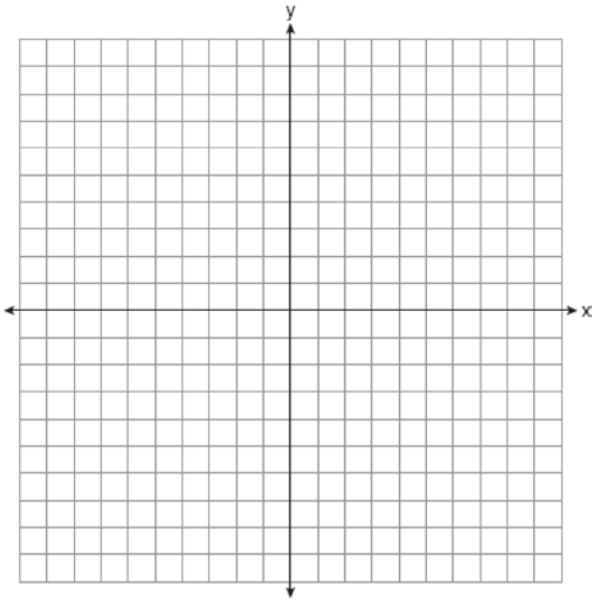
$$y + 2x = 6$$



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

$$y = -x^2 + 6x - 3$$

$$x + y = 7$$

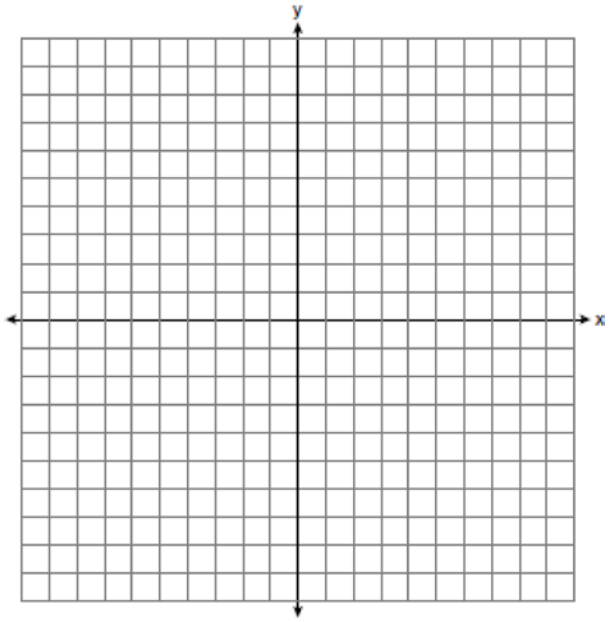


12 On the set of axes below, graph the following system of equations.

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

$$y - x = 4$$

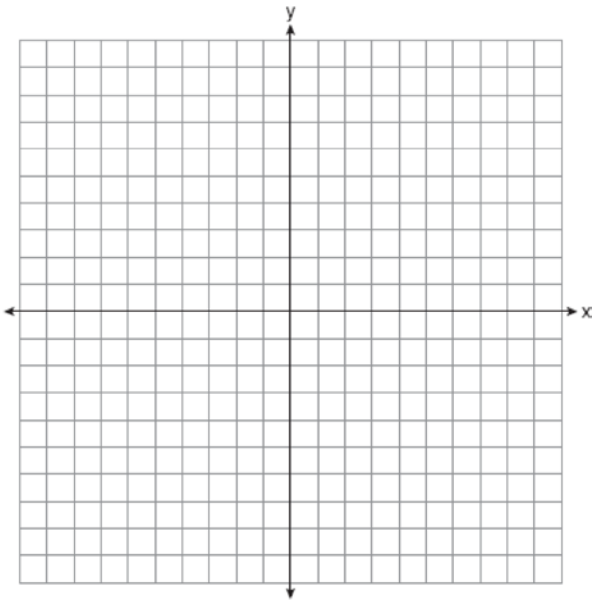
Using the graph, determine and state the coordinates of *all* points in the solution set for the system of equations.



13 On the set of axes below, graph the following system of equations. Using the graph, determine and state *all* solutions of the system of equations.

$$y = -x^2 - 2x + 3$$

$$y + 1 = -2x$$



A.G.9: Quadratic-Linear Systems 1:Solve systems of linear and quadratic equations graphically
Answer Section

1 ANS: 4 REF: 011102ia

2 ANS: 1

$2y - 2x = 10$ axis of symmetry: $x = \frac{-b}{2a} = \frac{-2}{2(1)} = -1$

$2y = 2x + 10$

$y = x + 5$

REF: 081010ia

3 ANS: 2 REF: 011012ia

4 ANS: 1 REF: 011207ia

5 ANS: 1

$x^2 - 5x + 3 = x - 6$ $y = 3 - 6 = -3$ $(3, -3)$

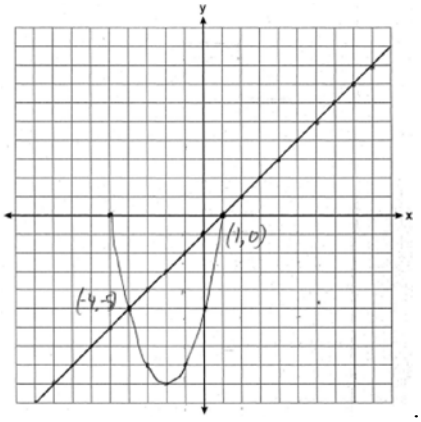
$x^2 - 6x + 9 = 0$

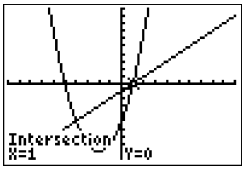
$(x - 3)^2 = 0$

$x = 3$

REF: 061330ia

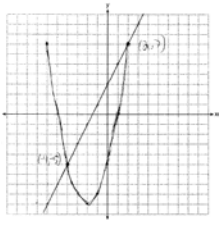
6 ANS:





REF: 080839ia

7 ANS:



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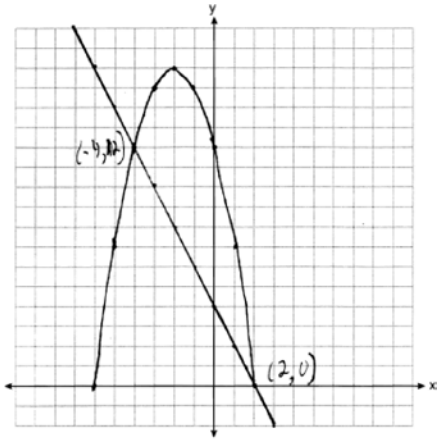
8 ANS:



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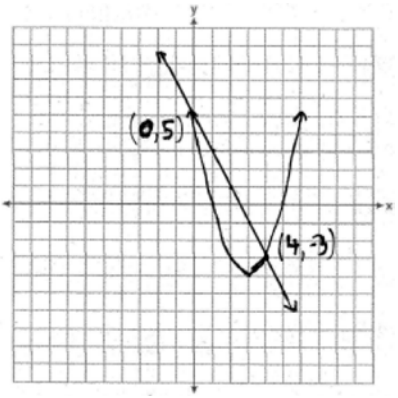
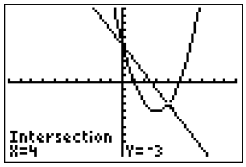
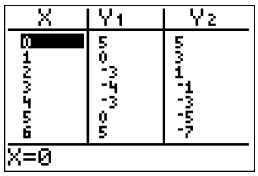
9 ANS:







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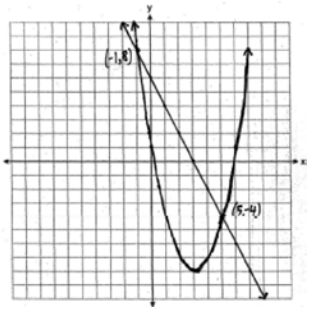

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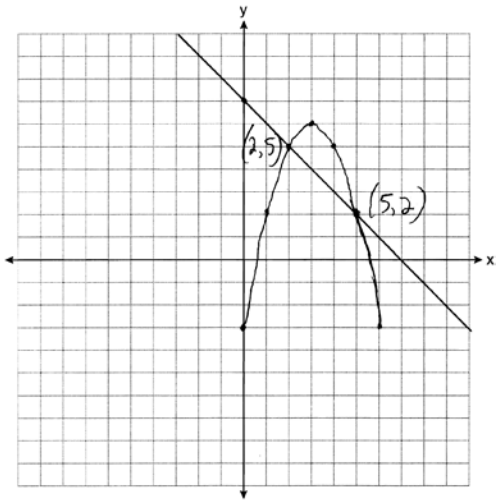
11 ANS:



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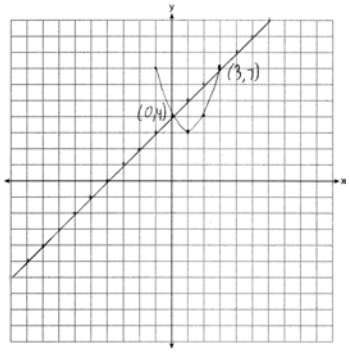
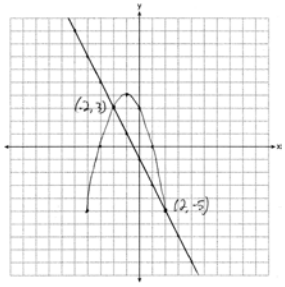
12 ANS:



REF: 011339ia

13 ANS:



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