

LESSON
9.7**Practice A***For use with the lesson "Solve Systems with Quadratic Equations"***Solve the system of equations using the substitution method.**

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

$y = 3x$

2. $y = 4x^2$

$y = 2x$

3. $y = x^2 - 1$

$y = 8x - 1$

4. $y = x^2$

$y = -5x$

5. $y = 8x^2 + x$

$y = 9x$

6. $y = \frac{1}{4}x^2$

$y = -2x$

Determine whether the graph of each system of equations has no points of intersection, one point of intersection, or two points of intersection.

7. $y = x^2$

$y = 2x - 3$

8. $y = 4x^2 - 5x + 6$

$y = -x + 8$

9. $y = 7x^2 - 3$

$y = x - 3$

Write a system that can be used to solve each equation.

10. $8x = x^2 + 15$

11. $-2x + 16 = 2x^2 - 16x$

12. $10x = -5x^2$

13. Describe the error in the solution steps shown. Give the correct solutions.

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

$$y = 5$$

$$y = (5)^2 - 4(5)$$

$$y = 25 - 20$$

$$y = 5$$

14. Gilbert tosses a ball in the air in a yard. The path of his ball is modeled by $y = -2x^2 + 10$. His friend Annie, who is in the same yard, throws a flying disc. The path of the flying disc is modeled by $y = x + 12$. Do the paths of the ball and flying disc intersect? If so, what are the point(s) where the paths meet?