

3.5

Practice A

In Exercises 1–4, solve the system by graphing. Check your solution(s).

1. $y = x + 6$

$y = \frac{1}{2}(x + 6)^2$

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

$y = -3$

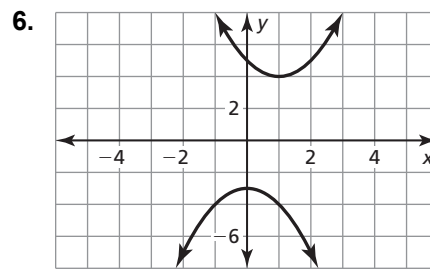
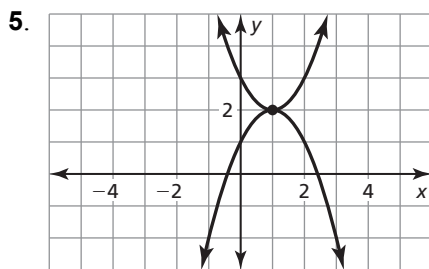
3. $y = -x + 3$

$y = 3x^2 - 4x + 3$

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

$y = 2x - 3$

In Exercises 5 and 6, solve the system of nonlinear equations using the graph.



In Exercises 7–10, solve the system by substitution.

7. $y = x - 4$

$y = x^2 - 4x$

8. $x^2 + y^2 = 25$

$y = 5 - x$

9. $x^2 + y^2 = 1$

$x = 1$

10. $y = 7$

$3x - 6 = 4x^2 - y$

In Exercises 11–14, solve the system using elimination.

11. $x^2 - 5x - y = 2$

$-x + y = -11$

12. $-4x^2 + x - 7 = y$

$2x + 8 = -y$

13. $-2x^2 + y = 14x + 16$

$-2x^2 - y = -14x - 12$

14. $y = x^2 - 4x + 6$

$y = -5x^2 + 20x - 12$

15. A nonlinear system contains the equation of a constant function and the equation of a circle. The system has two solutions. Describe the relationship between the graphs.