

Solving Quadratic Systems

Find the exact solution(s) of each system of equations.

1. $(x - 2)^2 + y^2 = 5$
 $x - y = 1$

2. $x = 2(y + 1)^2 - 6$
 $x + y = 3$

3. $y^2 - 3x^2 = 6$
 $y = 2x - 1$

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

5. $4y^2 - 9x^2 = 36$
 $4x^2 - 9y^2 = 36$

6. $y = x^2 - 3$
 $x^2 + y^2 = 9$

7. $x^2 + y^2 = 25$
 $4y = 3x$

8. $y^2 = 10 - 6x^2$
 $4y^2 = 40 - 2x^2$

9. $x^2 + y^2 = 25$
 $x = 3y - 5$

10. $4x^2 + 9y^2 = 36$
 $2x^2 - 9y^2 = 18$

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

12. $\frac{x^2}{9} - \frac{y^2}{16} = 1$
 $x^2 + y^2 = 9$

13. $25x^2 + 4y^2 = 100$
 $x = -\frac{5}{2}$

14. $x^2 + y^2 = 4$
 $\frac{x^2}{4} + \frac{y^2}{8} = 1$

15. $x^2 - y^2 = 3$
 $y^2 - x^2 = 3$

16. $\frac{x^2}{7} + \frac{y^2}{7} = 1$
 $3x^2 - y^2 = 9$

17. $x + 2y = 3$
 $x^2 + y^2 = 9$

18. $x^2 + y^2 = 64$
 $x^2 - y^2 = 8$

Topic: Linear-Quadratic Systems - Worksheet 1

Solve algebraically.

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

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

3. $y = x^2 - 10x + 14$
 $y = 7x - 16$

4. $y = x^2 - 24$
 $y = x - 12$

5. $y = x^2 - 8x - 12$
 $y = 4x + 8$

6. $y = x^2 + 6x + 3$
 $y = 3x - 7$

7. $y = x^2 - 9x - 18$
 $y = x + 3$

8. $y = x^2 + 6x + 10$
 $y = -2x - 6$

9. $y = x^2 + 8x + 16$
 $y = x + 6$

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