

Solve the system algebraically.

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

2. $x^2 - 2x + 3y - 11 = 0$
 $y = x + 3$

3. $2x^2 + 4y^2 = 54$
 $y = -x$

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

5. $5x^2 + 3y^2 = 17$
 $y - x = -1$

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

Answers: 1. (2, 2)(-2, -2) 2. (-2, 1)(1, 4) 3. (3, -3)(-3, 3)
4. (7, 5) 5. (-1, -2)(7/4, 3/4) 6. ($\sqrt{3}$, $-2\sqrt{3}$)($-\sqrt{3}$, $2\sqrt{3}$)