

**Graphing Calculator Lesson Opener**

For use with pages 425–431

**Enter the linear system into your calculator.  
Describe the two lines graphed and the solution.**

**1.**  $x + y = 3$

$2x + y = 2$

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

$-2x + 4y = 12$

**3.**  $3x + y = 1$

$3x + y = -2$

**4.**  $x - y = -2$

$x - y = 3$

**5.**  $2x - y = 3$

$3x + y = 1$

**6.**  $x - 3y = 2$

$3y - x = -2$

**7.**  $2x - 4y = 6$

$x - 2y = 3$

**8.**  $2x - y = 3$

$3x + y = 1$

- 9.** Which systems have one solution? What is true about the graphs of these linear systems?
- 10.** Which systems have no solutions? What is true about the graphs of these linear systems?
- 11.** Which systems have infinitely many solutions? What is true about the graphs of these linear systems?
- 12.** Make a conjecture about the graph of a linear system and its solution.