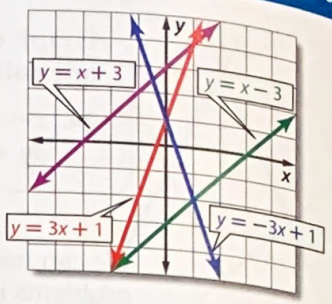
Check Your Understanding

= Step-by-Step Solutions begin on page R13.

Example 1 Use the graph at the right to determine whether each system is *consistent* or *inconsistent* and if it is *independent* or *dependent*.



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

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

3. $y = x - 3$
   $y = x + 3$

4. $y = x + 3$
   $x - y = -3$

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

6. $y = -3x + 1$
   $y = x - 3$

Example 2 Graph each system and determine the number of solutions that it has. If it has one solution, name it.

7. $y = x + 4$
   $y = -x - 4$

8. $y = x + 3$
   $y = 2x + 4$

Example 3

9. CCSS **MODELING** Alberto and Ashanti are reading a graphic novel.

   a. Write an equation to represent the pages each boy has read.

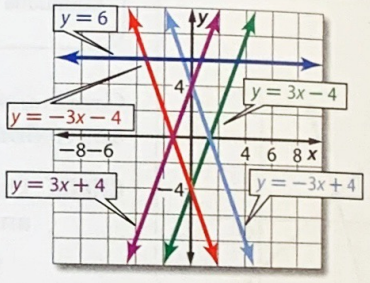
   b. Graph each equation.

   c. How long will it be before Alberto has read more pages than Ashanti? Check and interpret your solution.

Practice and Problem Solving

Extra Practice is on page R6.

Example 1 Use the graph at the right to determine whether each system is *consistent* or *inconsistent* and if it is *independent* or *dependent*.



10. $y = 6$
    $y = 3x + 4$

11. $y = 3x + 4$
    $y = -3x + 4$

12. $y = -3x + 4$
    $y = -3x - 4$

13. $y = -3x - 4$
    $y = 3x - 4$

14. $3x - y = -4$
    $y = 3x + 4$

15. $3x - y = 4$
    $3x + y = 4$

Example 2 Graph each system and determine the number of solutions that it has. If it has one solution, name it.

16. $y = -3$
    $y = x - 3$

17. $y = 4x + 2$
    $y = -2x - 3$

18. $y = x - 6$
    $y = x + 2$

19. $x + y = 4$
    $3x + 3y = 12$

20. $x - y = -2$
    $-x + y = 2$

21. $x + 2y = 3$
    $x = 5$

22. $2x + 3y = 12$
    $2x - y = 4$

23. $2x + y = -4$
    $y + 2x = 3$

24. $2x + 2y = 6$
    $5y + 5x = 15$