

# 5.4

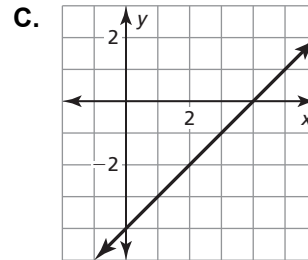
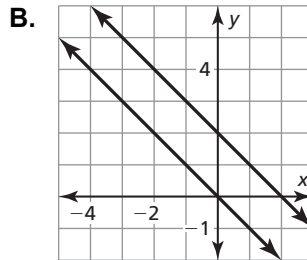
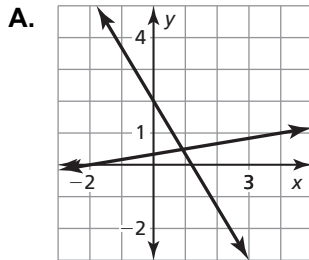
## Practice A

In Exercises 1–3, match the system of linear equations with its graph. Then determine whether the system has *one solution*, *no solution*, or *infinitely many solutions*.

1.  $x + y = 0$   
 $3x + 3y = 6$

2.  $5x + 3y = 6$   
 $x - 6y = -2$

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



In Exercises 4–6, solve the system of linear equations.

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

5.  $y = 3x + 7$   
 $y = -3x + 7$

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

In Exercises 7–9, use only the slopes and *y*-intercepts of the graphs of the equations to determine whether the system of linear equations has *one solution*, *no solution*, or *infinitely many solutions*. Explain.

7.  $y = 2x - 5$   
 $4x - 2y = 10$

8.  $y = -5x + 3$   
 $15x + 3y = -3$

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

10. Describe and correct the error in solving the system of linear equations.

$\times$   $y = -2x + 5$   
 $2x + y = 5$

The lines have different slopes.  
So, the system has one solution.

11. You downloaded 2 DVDs and 10 songs for \$18. Your friend downloaded 3 DVDs and 15 songs for \$27. Write a system of linear equations that represents this situation. Can you determine the price of each DVD and each song? Explain.