Review for Test

Lesson 6-1

Solve each system by graphing. USE GRAPH PAPER.

1.
$$x-y = 7$$
 $3x + 2y = 6$

2.
$$y = 2x + 3$$
 $y = 3x + 7$

3.
$$y = -2x + 6$$
 $3x + 4y = 24$

Write and solve a system of equations by graphing. USE GRAPH PAPER.

- **4.** One calling card has a \$.50 connection fee and charges \$.02 per minute. Another card has a \$.25 connection fee and charges \$.03 per minute. After how many minutes would a call cost the same amount using either card?
- **5.** Suppose that you have \$75 in your savings account and you save an additional \$5 per week. Your friend has \$30 in his savings account and saves an additional \$10 per week. In how many weeks will you both have the same amount of money in your accounts?

Review for Test (continued)

Lesson 6-2

Solve each system by using substitution.

6.
$$x - y = 13$$
 $y - x = -13$

7.
$$3x - y = 4$$

 $x + 5y = -4$

8.
$$x + y = 4$$
 $y = 7x + 4$

Write and solve a system of equations by substitution.

- **9.** A farmer grows corn and soybeans on her 300-acre farm. She wants to plant 110 more acres of soybeans than corn. How many acres of each crop does she need to plant?
- **10.** The perimeter of a rectangle is 34 cm. The length is 1 cm longer than the width. What are the dimensions of the rectangle?

Lesson 6-3

Solve each system by elimination.

11.
$$x + y = 19$$
 $x - y = -7$

12.
$$-3x + 4y = 29$$
 $3x + 2y = -17$

13.
$$3x + y = 3$$

 $-3x + 2y = -30$

14.
$$6x + y = 13$$
 $y - x = -8$

15.
$$4x - 9y = 61$$

 $10x + 3y = 25$

16.
$$4x - y = 105$$

 $x + 7y = -10$

Write and solve a system of equations using elimination.

- **17.** Two groups of people order food at a restaurant. One group orders 4 hamburgers and 7 chicken sandwiches for \$34.50. The other group orders 8 hamburgers and 3 chicken sandwiches for \$30.50. Find the cost of each item.
- **18.** The sum of two numbers is 25. Their difference is 9. What are the two numbers?