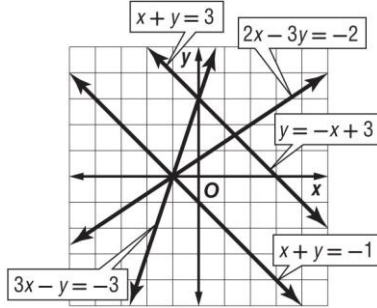


Chapter 6 Test, Form 2D

SCORE _____

Use the graph at the right to determine whether each system has *no* solution, *one* solution, or *infinitely many* solutions.

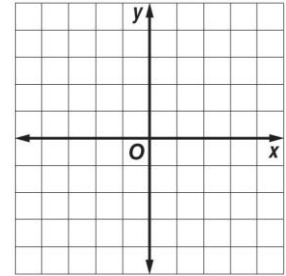


1. $x + y = 3$
 $y = -x + 3$
2. $3x - y = -3$
 $2x - 3y = -2$

Graph each system of equations. Then determine whether the system has *no* solution, *one* solution, or *infinitely many* solutions. If the system has one solution, name it.

3. $y = -x + 3$
 $y = x - 3$
4. $2x - y = 5$
 $4x - 2y = 10$

1. _____
2. _____
3. _____

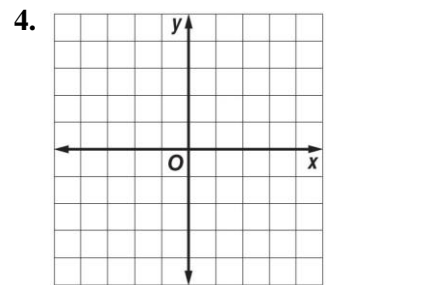


Use substitution to solve each system of equations. If the system does not have exactly one solution, state whether it has *no* solution or *infinitely many* solutions.

5. $y = 2x$
 $2x + y = 8$
6. $2x - y = 3$
 $5x + 7y = 17$

Use elimination to solve each system of equations.

7. $2x + 3y = 19$
 $2x - 3y = 1$
8. $6x + 4y = 20$
 $4x - 2y = 4$
9. $2x + 2y = 6$
 $3x - 2y = -11$
10. $7x + 3y = 1$
 $9x + 3y = -3$



Determine the best method to solve each system of equations. Then solve the system.

11. $y = 3x + 1$
 $x - 2y = 8$
12. $5x - 15y = -20$
 $5x - 4y = -9$

13. The sum of two numbers is 16 and their difference is 20. What are the two numbers?

14. Kyle started a new job part of the way through last month that pays \$7 per hour. He began the month making \$5 per hour at his old job. Kyle worked a total of 54 hours last month and made \$338 before deductions. How many hours did he work at his new job?

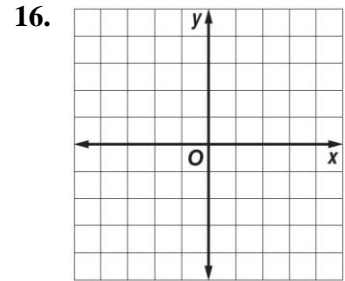
15. Brent has \$3.35 in quarters and dimes. If he has 23 coins in all, find the number of quarters and dimes.

5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

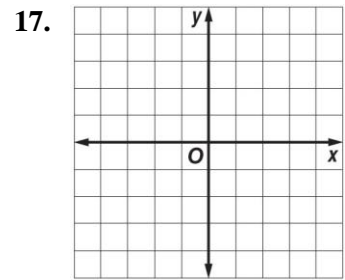
Chapter 6 Test, Form 2D *(continued)*

For Questions 16 and 17, solve the system of inequalities by graphing.

16. $y < \frac{1}{3}x + 1$
 $y \leq 2x - 3$



17. $y \leq x + 3$
 $y > -\frac{1}{2}x - 2$



18. To qualify for a certain car loan, a customer must have a credit score of at least 600. In addition, the cost of the car must be at least \$5000. Define the variables, write a system of inequalities to represent this situation, and name one possible solution.

18. _____

Bonus Find the point on the graph of $3x - 4y = 9$ where the y -coordinate is 3 times the x -coordinate.

B. _____