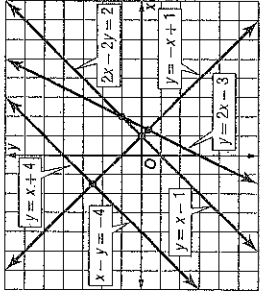


Skills Practice

Graphing Systems of Equations

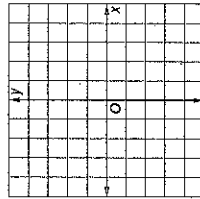
Use the graph at the right to determine whether each system is *consistent* or *inconsistent* and if it is *independent* or *dependent*.



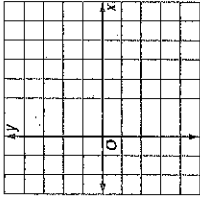
1. $y = x - 1$
2. $x - y = -4$
3. $y = x + 4$
4. $y = x + 1$
5. $y = 2x - 3$
6. $2x - 2y = 2$

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

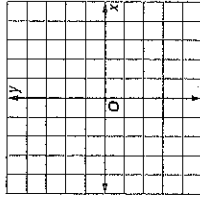
5. $2x - y = 1$
 $y = -3$



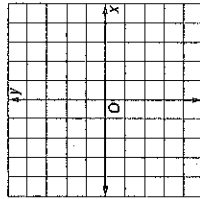
6. $x = 1$
 $2x + y = 4$



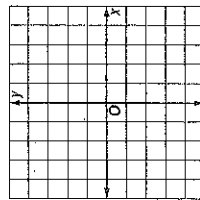
7. $3x + y = -3$
 $3x + y = 3$



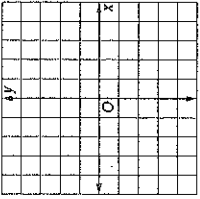
8. $y = x + 2$
 $x - y = -2$



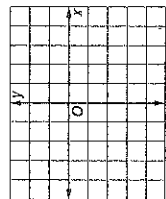
9. $x + 3y = -3$
 $x - 3y = -3$



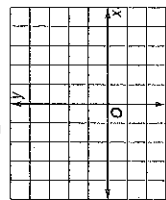
10. $y - x = -1$
 $x + y = 3$



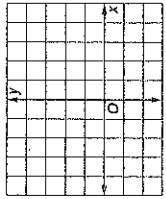
11. $x - y = 3$
 $x - 2y = 3$



12. $x + 2y = 4$
 $y = -\frac{1}{2}x + 2$



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



Skills Practice

Substitution

Use substitution to solve each system of equations.

1. $y = 4x$
 $x + y = 5$
2. $y = 2x$
 $x + 3y = -14$
3. $y = 3x$
 $2x + y = 15$
4. $x = -4y$
 $3x + 2y = 20$
5. $y = x - 1$
 $x + y = 3$
6. $x = y - 7$
 $x + 8y = 2$
7. $y = 4x - 1$
 $y = 2x - 5$
8. $y = 3x + 8$
 $5x + 2y = 5$
9. $2x - 3y = 21$
 $y = 3 - x$
10. $y = 5x - 8$
 $4x + 3y = 33$
11. $x + 2y = 13$
 $3x - 5y = 6$
12. $x + 5y = 4$
 $3x + 15y = -1$
13. $3x - y = 4$
 $2x - 3y = -9$
14. $x + 4y = 8$
 $2x - 5y = 29$

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Skills Practice

Elimination Using Addition and Subtraction

Use elimination to solve each system of equations.

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

2. $-x + y = 1$
 $x + y = 11$

3. $x + 4y = 11$
 $x - 6y = 11$

4. $-x + 3y = 6$
 $x + 3y = 18$

5. $3x + 4y = 19$
 $3x + 6y = 33$

6. $x + 4y = -8$
 $x - 4y = -8$

7. $3x + 4y = 2$
 $4x - 4y = 12$

8. $3x - y = -1$
 $-3x - y = 5$

9. $2x - 3y = 9$
 $-5x - 3y = 30$

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

11. $3x - y = 26$
 $-2x - y = -24$

12. $5x - y = -6$
 $-x + y = 2$

13. $6x - 2y = 32$
 $4x - 2y = 18$

14. $3x + 2y = -19$
 $-3x - 5y = 25$

15. $7x + 4y = 2$
 $7x + 2y = 8$

16. $2x - 5y = -28$
 $4x + 5y = 4$

17. The sum of two numbers is 28 and their difference is 4. What are the numbers?

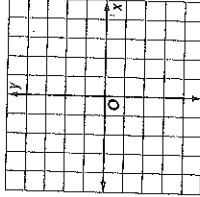
18. Find the two numbers whose sum is 29 and whose difference is 15.

Skills Practice

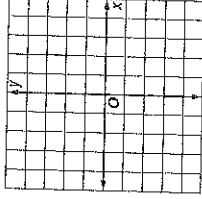
Systems of Inequalities

Solve each system of inequalities by graphing.

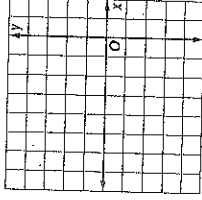
1. $x > -1$
 $y \leq -3$



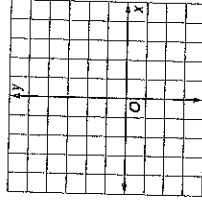
2. $y > 2$
 $x < -2$



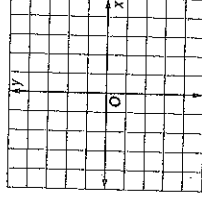
3. $y > x + 3$
 $y \leq -1$



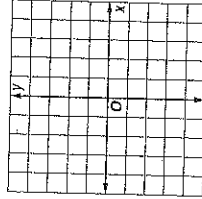
4. $x < 2$
 $y - x \leq 2$



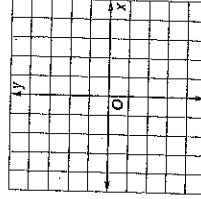
5. $x + y \leq -1$
 $x + y \geq 3$



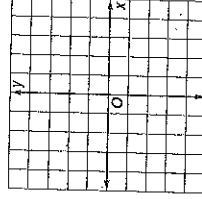
6. $y - x > 4$
 $x + y > 2$



7. $y > x + 1$
 $y \geq -x + 1$



8. $y \geq -x + 2$
 $y < 2x - 2$



9. $y < 2x + 4$
 $y \geq x + 1$

