

## Review Worksheet for Unit 2B Test

Name \_\_\_\_\_ Date \_\_\_\_\_

Determine if the given point is a solution to the system of equations:

$$-x + y = -2$$

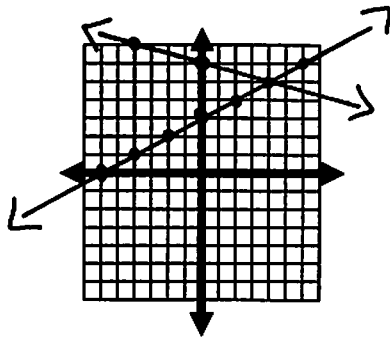
$$2x + y = 10$$

1.  $(-4, -2)$

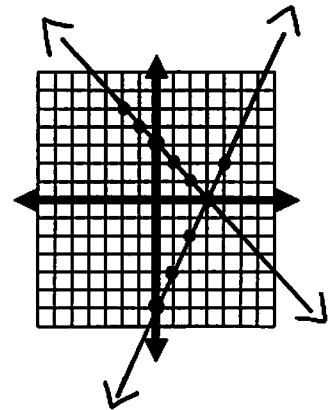
2.  $(4, 2)$

Use the graph to solve the linear system. Check your answer algebraically.

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

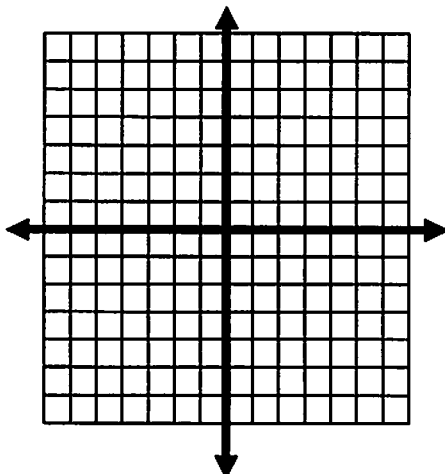


4.  $x + y = 3$   
 $-2x + y = -6$

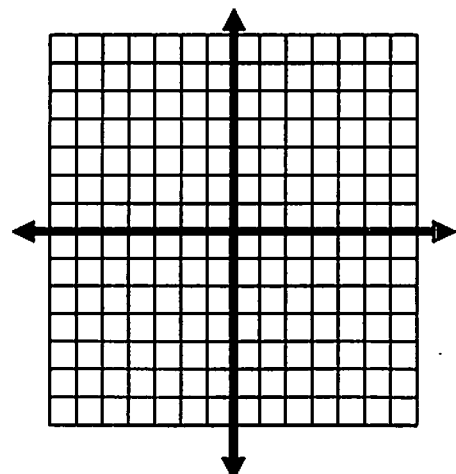


Find the solution of the linear system graphically. Write your solution in the blank provided.

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



\_\_\_\_\_ 6.  $y = -2x + 7$   
 $-3x + 6y = 12$



Use substitution to solve the linear system. SHOW ALL WORK and write your solution in the space provided.

\_\_\_\_\_ 7.  $y = 2x - 2$   
 $6x + 2y = 16$

\_\_\_\_\_ 8.  $4x - y = -6$   
 $y = 2x + 2$

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Use elimination to solve the linear system. SHOW ALL WORK and write your solution in the space provided.

\_\_\_\_\_ 9.  $5x - 3y = 7$   
 $x + 3y = 5$

\_\_\_\_\_ 10.  $-3x + 3y = -9$   
 $6x + 2y = 2$

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Use any method to solve the linear system. SHOW ALL WORK and write your solution in the space provided.

\_\_\_\_\_ 11.  $6x - 9y = 18$   
 $2x - 3y = 10$

\_\_\_\_\_ 12.  $x - 2y = 5$   
 $3x - 5y = 8$

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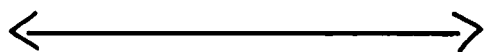
### Word Problems

13. Bob wants to buy some CDs at the music store. Used ones sell for \$4.99, and new ones sell for \$13.99. He has \$75 to spend that he got for his birthday. Write an inequality for this scenario and use it to decide if Bob can buy 4 used and 4 new CDs.

14. The sum of two number is 138. Their difference is 44. Find the two numbers. Write a system of linear equations and use it to solve the problem.
15. A store sold 32 pairs of jeans for a total of \$1050. Brand A sold for \$30 per pair and Brand B sold for \$35 per pair. How many of Brand A were sold? Write a system of linear equations and use it to solve the problem.
16. You are selling tickets for a basketball game. Student tickets cost \$3 and general admission tickets cost \$5. You sell 350 tickets and collect \$1450. How many of each type of ticket did you sell? Write a system of linear equations and use it to solve the problem.
17. You can work a total of no more than 36 hours each week at your two jobs. Babysitting pays \$8 per hour and dogsitting pays \$7 per hour. You need to earn at least \$198 each week in order to pay your bills. Write a system of linear inequalities that shows the various numbers of hours you can work at each job.

Solve and graph each inequality.

18.  $3 - x \leq 1$

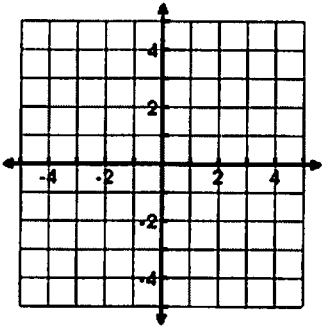


19.  $-4(2x - 3) > 5(-x + 6)$

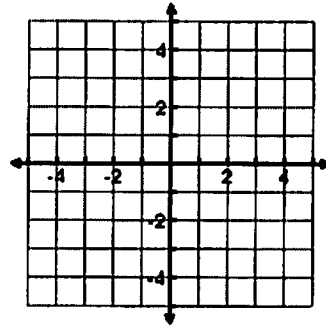


Graph each inequality.

20.  $y \leq x - 4$

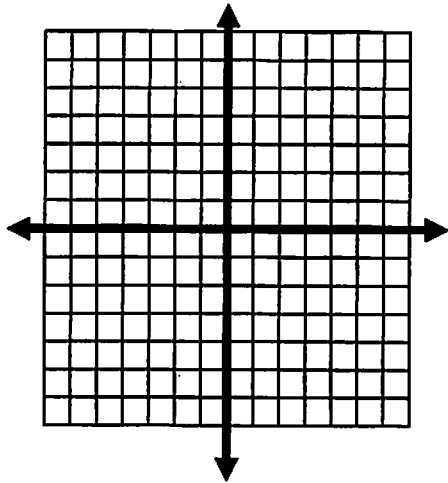


21.  $-2y + 3 > 8$

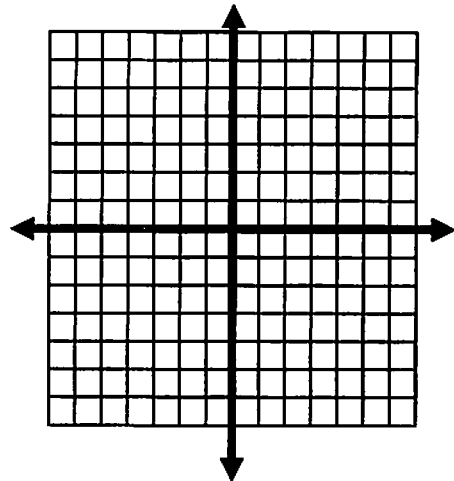


Solve by graphing.

22.  $y > -\frac{1}{3}x + 4$   
 $3x \geq -6$



23.  $2x + y \leq 3$   
 $x - 2y \leq 4$



24. Write a system of linear inequalities that defines the shaded region.

