

**Algebra 1B**  
**Chapter 7 Review: Linear Systems**

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

**Calculator NOT Allowed**

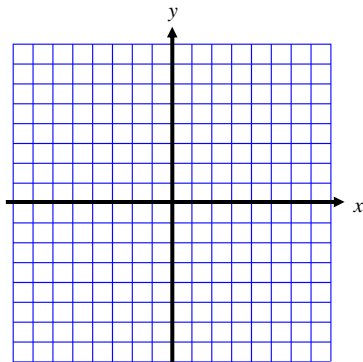
1. Is (2, 5) a solution of the following system? Explain.

$$y = 2x + 1$$

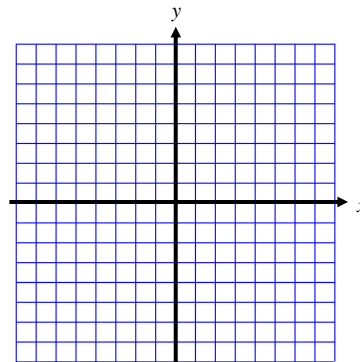
$$2x - y = 8$$

**Solve each system by graphing.**

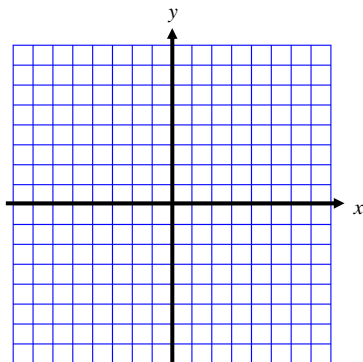
2.  $y = 3x - 1$   
 $y = -2x + 4$



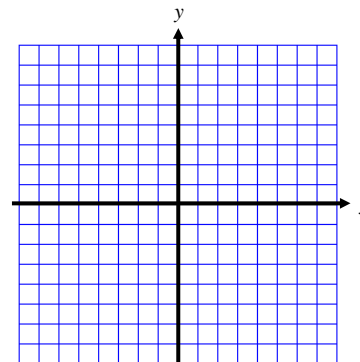
3.  $y = -\frac{3}{4}x + 5$   
 $10x - 3y = -15$



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

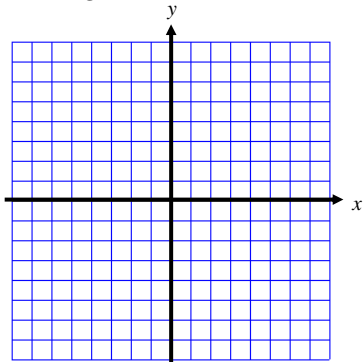


5.  $y = -x + 2$   
 $3x + 3y = 12$

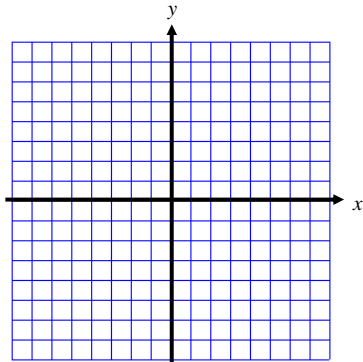


**Graph each inequality.**

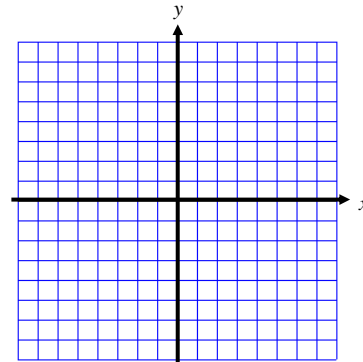
6.  $y > -\frac{2}{5}x - 2$



7.  $4x + 2y \leq -8$



8.  $6x - 4y > -16$



## Graphing Calculator Allowed

Solve each system using substitution.

9.  $x = y - 7$   
 $2x + y = -8$

10.  $y = 3x - 10$   
 $y = 8x + 5$

11.  $2x + 4y = -6$   
 $x - 3y = 7$

12.  $4x + y = -2$   
 $-2x - 3y = 1$

Solve each system using elimination.

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

14.  $9x - 3y = 24$   
 $7x - 3y = 20$

15.  $-6x + 12y = 96$   
 $3x - 6y = -48$

16.  $4x - 3y = 11$   
 $3x - 5y = -11$

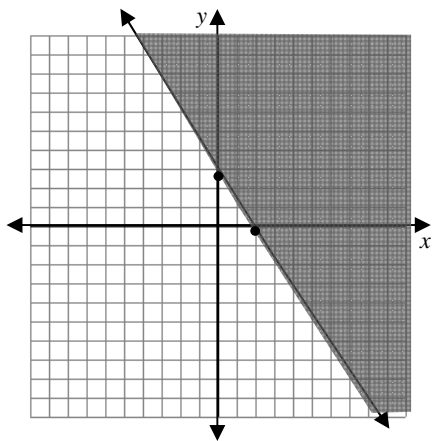
Solve each system by graphing using your graphing calculator. \*\* ... not required in this chapter \*\*\*

17.  $y = x - 5$   
 $y = 2x + 1$

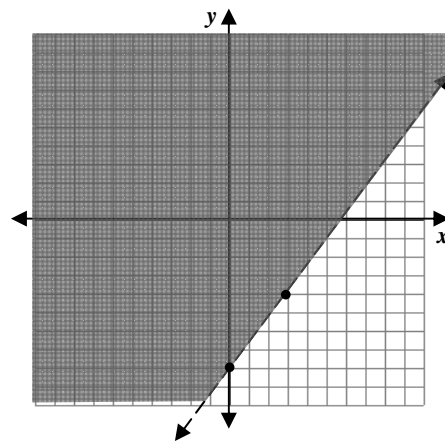
18.  $x + y = -10$   
 $2x + 3y = -30$

Write the linear inequality shown on the graph.

19.



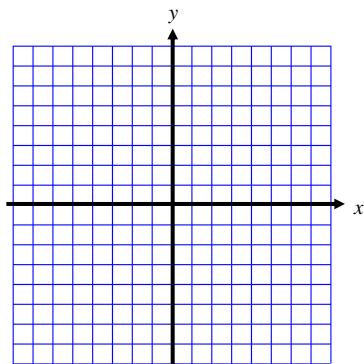
20.



Graph each system of inequalities.

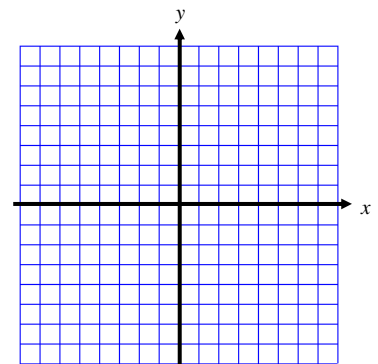
21.  $x \geq -2$

$y < -\frac{4}{5}x + 1$



22.  $-2x + 3y < 12$

$y \geq -x + 4$



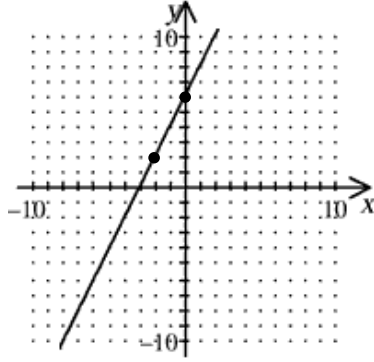
Use a system of equations to solve each word problem.

23. Suppose your community center sells a total of 292 tickets for a basketball game. An adult ticket costs \$3. A student ticket costs \$1. The sponsors collect \$470 in ticket sales. Write and solve a system of linear equations to find the number of each type of ticket sold.

24. Suppose you bought supplies for a party. Three rolls of streamers and 15 party hats cost \$30. Later, you bought 2 rolls of streamers and 4 party hats for \$11. Write and solve a system of linear equations to find the cost of each roll of streamers and each party hat.

## Previous Chapter Review

25. Find the slope of the line.



26. Suppose the following two points are on a line:  $(-4, 10)$  and  $(6, 5)$

a) Find the slope

b) Write the equation of the line in point-slope form.

c) Write the equation of the line in slope-intercept form.

d) Write the equation of the line in standard form.