

**6-5****Practice B***Form K***Linear Inequalities****Graph each linear inequality.**

1.  $x \geq -7$

2.  $y < -5$

3.  $-x + y \geq 2$

4.  $-4x + 5y < -3$

5.  $x - y \geq 8$

6.  $2x + 3y > 9$

7.  $y \geq x$

8.  $3x > y$

9.  $x - 2y > -4$

10.  $5x + 5y > -10$

11.  $4x - \frac{1}{2}y < 3$

12.  $x \leq -3y$

**13. Writing** How can you check to see that you have shaded the correct half of the coordinate plane after graphing a linear inequality? Explain.

Determine whether the ordered pair is a solution of the linear inequality.

14.  $4x + 3y > -2$ ;  $(-3, -1)$

15.  $x + y > -3$ ;  $(-2, 2)$

16.  $y - 4x \leq 0$ ;  $(1, 4)$

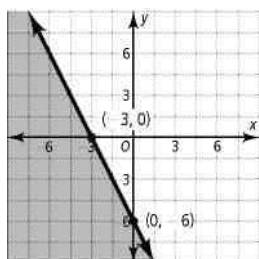
17.  $2x - 4y > 5$ ;  $(5, -1)$

18.  $y \leq 2x - 3$ ;  $(-1, -4)$

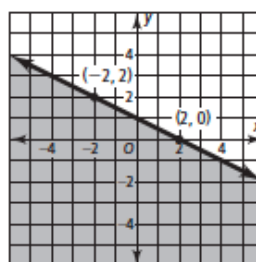
19.  $y < -3x + 1$ ;  $(3, 5)$

Write a linear inequality that represents each graph.

20.



21.



22. A friend has \$75 to buy some new shirts and pants. Each shirt  $s$  costs \$11. Each pair of pants  $p$  costs \$19.

a. Write and graph an inequality that shows how many shirts and pants your friend can buy.

b. Which side of the boundary line should you shade?

c. What inequality symbol did you use? Explain.

23. Admission to the movie theater costs \$7.50 for adults and \$3.50 for students. The theater must bring in at least \$200 per movie. Write an inequality for the number of tickets the theater needs to sell to make a profit. If the theater sells 15 adult tickets, how many student tickets do they need to sell to make a profit?

24. Each child at the birthday party was given \$5 to spend at the arcade on games and rides. Each game costs \$0.25 and each ride costs \$0.50. Write an inequality for the number of games and rides a child can enjoy for \$5. What is the maximum number of games or rides each child can enjoy?