

Practice

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. $x \leq -3y$

Practice (continued)

Form K

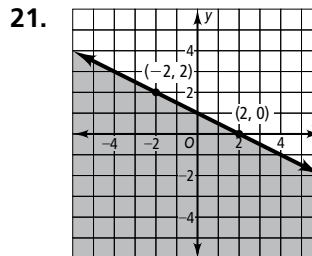
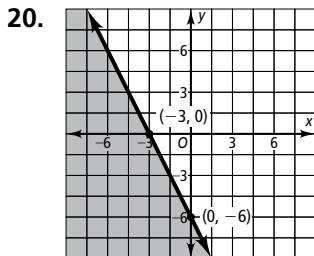
Linear Inequalities

- 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.



22. A friend has \$75 to buy some new shirts and pants. Each shirt s costs \$11. Each pair of pants p costs \$19.
- Write and graph an inequality that shows how many shirts and pants your friend can buy.
 - Which side of the boundary line should you shade?
 - 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?