Name _____ Class _____ Date _____

Practice 6-5

Example Exercises

Example 1

Graph each linear inequality.

1. $y > 3$

2. $y < 2$

3. $y > -1$

4. $x < 4$

5. $x > -3$

6. $y > x + 2$

7. $y < -2x + 3$

8. $y > 3x - 1$

9. $y < 4x + 5$

10. $y > \frac{2}{3}x - 1$

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

12. $y > \frac{3}{2}x - 2$

13. $y > 5x - 2$

14. $y < -4x + 3$

15. $y > -x + 8$

Example 2

Graph each linear inequality.

16. $x + y \leq 3$

17. $-x + y \geq -1$

18. $3x + y \geq 4$

19. $-2x + y \leq 6$

20. $4x + 2y \leq -4$

21. $-6x + 2y \geq -6$

22. $x + 3y \leq -3$

23. $x + 4y \geq 4$

24. $-x + 3y \leq -12$

25. $4x + 3y \geq -9$

26. $-2x + 5y \leq 20$

27. $8x + 5y \geq -15$

28. $-10x + 4y \geq 24$

29. $8x - 4y \geq 16$

30. $5x - 3y \leq 9$

Example 3

Write the linear inequality described. Then graph the inequality.

31. Suppose you are responsible for recycling the metal cans and plastic bottles at your school. How many bags of each type can you send to the recycling center if the truck holds no more than nine bags?

a. Write a linear inequality that describes the situation.

b. Graph the linear inequality.

c. Write three possible solutions to the problem.

32. Members of the school choir are going to see a musical. They will be riding in cars and vans. The cars will hold 5 students and the vans will hold 8 students. How many vehicles of each type will the choir use if no more than 40 students will be going?

a. Write a linear inequality that describes the situation.

b. Graph the linear inequality.

c. Write three possible solutions to the problem.