

# Practice 4-6

## ..... Example Exercises

### Example 1

Solve each inequality. Graph the solutions on a number line.

- |                                |                                 |                                  |                                  |
|--------------------------------|---------------------------------|----------------------------------|----------------------------------|
| 1. $\frac{w}{2} > 5$           | 2. $\frac{t}{4} < -2$           | 3. $\frac{a}{4} \leq 1$          | 4. $\frac{n}{3} \geq -3$         |
| 5. $-3 \leq \frac{x}{7}$       | 6. $12 > \frac{y}{9}$           | 7. $-2 \geq \frac{d}{2}$         | 8. $7 < \frac{p}{8}$             |
| 9. $\frac{1}{2} < \frac{n}{6}$ | 10. $\frac{c}{9} < \frac{2}{3}$ | 11. $\frac{f}{8} < -\frac{1}{4}$ | 12. $-\frac{3}{2} > \frac{k}{4}$ |

### Example 2

Solve each inequality. Graph the solutions on a number line.

- |                         |                           |                                   |                                      |
|-------------------------|---------------------------|-----------------------------------|--------------------------------------|
| 13. $-\frac{1}{2}p > 4$ | 14. $\frac{1}{3}w \geq 1$ | 15. $-y \geq 10$                  | 16. $-\frac{1}{6}h > -4$             |
| 17. $\frac{3}{4}r < 6$  | 18. $-m < 12$             | 19. $-\frac{2}{5}b \geq 2$        | 20. $-\frac{2}{3}x \leq \frac{4}{3}$ |
| 21. $\frac{1}{6}f < 1$  | 22. $-\frac{5}{2}h < 10$  | 23. $\frac{15}{4} < \frac{5}{4}s$ | 24. $\frac{7}{8}q > 14$              |

### Example 3

Solve each inequality. Graph the solutions on a number line.

- |                  |                     |                |                    |
|------------------|---------------------|----------------|--------------------|
| 25. $3c < 12$    | 26. $6d > -18$      | 27. $-4z > 20$ | 28. $0.7v > 1.4$   |
| 29. $18 \leq 3b$ | 30. $3.0 \leq 1.2g$ | 31. $8 < -2k$  | 32. $-8n \geq -16$ |

**Model with an inequality and solve.**

33. Suppose you earn \$7.50 for every lawn that you mow. You need to earn at least \$120 to pay for camp. How many lawns must you mow?
34. A gallon jug of milk costs \$1.20. What is the greatest number of jugs of milk that you can buy with \$6?
35. The student council is picking up litter along the highway. When they are halfway done, they have collected at least 5 bags of liter. If their rate of collection remains constant, what is the total number of bags they will have when they are finished?
36. A gallon of paint will cover 600 ft<sup>2</sup>. If you have at least 2400 ft<sup>2</sup> to paint, what is the least number of gallons of paint that you will need?
37. Suppose you worked 18 h last week. Your pay was at least \$111.60. What is your hourly rate of pay?