

GUIDED PRACTICE

SEE EXAMPLE 1

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Solve each inequality and graph the solutions.

1. $3b > 27$

2. $-40 \geq 8b$

3. $\frac{d}{3} > 6$

4. $24d \leq 6$

5. $1.1m \leq 1.21$

6. $\frac{2}{3}k > 6$

7. $9s > -18$

8. $\frac{4}{5} \geq \frac{r}{2}$

SEE EXAMPLE 2

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9. $-2x < -10$

10. $\frac{b}{-2} \geq 8$

11. $-3.5n < 1.4$

12. $4 > -8g$

13. $\frac{d}{-6} < \frac{1}{2}$

14. $-10h \geq -6$

15. $12 > \frac{t}{-6}$

16. $-\frac{1}{2}m \geq -7$

SEE EXAMPLE 3

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17. **Travel** Tom saved \$550 to go on a school trip. The cost for a hotel room, including tax, is \$80 per night. Write an inequality to show the number of nights Tom can stay at the hotel.

PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
18–29	1
30–41	2
42	3

Extra Practice

Skills Practice p. S8

Application Practice p. S30

Solve each inequality and graph the solutions.

18. $10 < 2t$

19. $\frac{1}{3}j \leq 4$

20. $-80 < 8c$

21. $21 > 3d$

22. $\frac{w}{4} \geq -2$

23. $\frac{h}{4} \leq \frac{2}{7}$

24. $6y < 4.2$

25. $12c \leq -144$

26. $\frac{4}{5}x \geq \frac{2}{5}$

27. $6b \geq \frac{3}{5}$

28. $-25 > 10p$

29. $\frac{b}{8} \leq -2$

30. $-9a > 81$

31. $\frac{1}{2} < \frac{r}{-3}$

32. $-6p > 0.6$

33. $\frac{y}{-4} > -\frac{1}{2}$

34. $-\frac{1}{6}f < 5$

35. $-2.25t < -9$

36. $24 \leq -10w$

37. $-11z > 121$

38. $\frac{3}{5} < \frac{f}{-5}$

39. $-k \geq 7$

40. $-2.2b < -7.7$

41. $16 \geq -\frac{4}{3}p$

42. **Camping** The rope Roz brought with her camping gear is 54 inches long. Roz needs to cut shorter pieces of rope that are each 18 inches long. What are the possible number of pieces Roz can cut?

Solve each inequality and graph the solutions.

43. $-8x < 24$

44. $3t \leq 24$

45. $\frac{1}{4}x < 5$

46. $\frac{4}{5}p \geq -24$

47. $54 \leq -9p$

48. $3t > -\frac{1}{2}$

49. $-\frac{3}{4}b > -\frac{3}{2}$

50. $216 > 3.6r$

Write an inequality for each statement. Solve the inequality and graph the solutions.

51. The product of a number and 7 is not less than 21.

52. The quotient of h and -6 is at least 5.53. The product of $-\frac{4}{5}$ and b is at most -16 .54. Ten is no more than the quotient of t and 4.

55. **Write About It** Explain how you know whether to reverse the inequality symbol when solving an inequality.



56. **Geometry** The area of a rectangle is at most 21 square inches. The width of the rectangle is 3.5 inches. What are the possible measurements for the length of the rectangle?