

# Practice 4-6

## Mixed Exercises

**Solve each inequality. Check your solutions. Graph the solutions on a number line.**

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|-------------------------------------|--------------------------------------|----------------------------------|--------------------------------|
| 1. $\frac{15}{8} \leq \frac{5}{2}s$ | 2. $60 \leq 12b$                     | 3. $\frac{4}{5}r < 8$            | 4. $\frac{5}{2} < \frac{n}{8}$ |
| 5. $-9n \geq -36$                   | 6. $\frac{n}{7} \geq -6$             | 7. $7c < 28$                     | 8. $16d > -64$                 |
| 9. $\frac{t}{3} < -5$               | 10. $54 < -6k$                       | 11. $\frac{w}{7} > 0$            | 12. $2.6v > 6.5$               |
| 13. $-4 < \frac{2}{5}m$             | 14. $17 < \frac{p}{2}$               | 15. $2.7 \leq 1.8v$              | 16. $-5 \leq \frac{x}{9}$      |
| 17. $-1 \geq \frac{d}{7}$           | 18. $-\frac{2}{3}x \leq \frac{8}{9}$ | 19. $\frac{c}{12} < \frac{3}{4}$ | 20. $\frac{a}{4} \leq -1$      |

**Model with an inequality and solve.**

- Suppose you and a friend are working for a nursery planting trees. You can plant 8 trees per hour. What is the greatest number of hours that it would take you to plant at most 40 trees?
- Suppose the physics club is going on a field trip. They will be riding in vans that will hold 7 people. At least 28 people will be going on the field trip. What is the least number of vans needed to make the trip?
- You need to buy stamps to mail some letters. The stamps cost \$.32 each. What is the maximum number of stamps that you can buy with \$3.84?
- The Garcias are putting down a brick border along their flower garden. The flower garden is no more than 31 ft long. If the bricks are 6 in. long, what is the greatest number of bricks needed?
- Janet needs to travel 275 mi for a conference. She needs to be at the conference in no more than 5.5 h. What is the slowest average speed that she can drive and still make the conference?

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

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|-----------------------------------|-------------------------|-----------------------------------|-----------------------------------|
| 26. $\frac{1}{4}h < 4.9$          | 27. $\frac{7}{3}x < 21$ | 28. $-\frac{1}{9}f > 9$           | 29. $\frac{4}{5}b \leq 12$        |
| 30. $\frac{3}{5}q > 15$           | 31. $84 \leq 21b$       | 32. $\frac{f}{12} > -\frac{5}{6}$ | 33. $80.6 \leq 6.5b$              |
| 34. $-\frac{1}{9}p > \frac{1}{3}$ | 35. $-9z > 63$          | 36. $\frac{1}{7}y \leq 6$         | 37. $-\frac{5}{7} > \frac{k}{14}$ |
| 38. $6.8 > \frac{y}{5}$           | 39. $75 \leq 15b$       | 40. $39 < -13k$                   | 41. $7d > -29.4$                  |
| 42. $8.5v > 61.2$                 | 43. $-11n \geq -55$     | 44. $\frac{1}{4}y < 17$           | 45. $92 < -23k$                   |