

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. $92 < -23k$ |