

Practice 4-5

Mixed Exercises

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

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| 1. $n - 7 \geq 2$ | 2. $y > 2$ | 3. $3.2 < r + 4.7$ | 4. $7 + b > 13$ |
| 5. $h + \frac{3}{4} > \frac{1}{2}$ | 6. $-\frac{5}{7} \neq c + \frac{2}{7}$ | 7. $g + 4.6 < 5.9$ | 8. $0 > d - 2.7$ |
| 9. $f + 4 \geq 14$ | 10. $x + 1 \leq -3$ | 11. $d - 13 \neq -8$ | 12. $m - 7 \neq -8$ |
| 13. $12 + v < 19$ | 14. $-4 \leq t + 9$ | 15. $6 < y - 3$ | 16. $a + 15 > 19$ |
| 17. $8 + d < 9$ | 18. $s + 3 \leq 3$ | 19. $9 + h \neq 5$ | 20. $7.6 > t - 2.4$ |

Model each problem with an inequality and solve.

21. It will take at least 360 points for Kiko's team to win the math contest. The scores for Kiko's teammates were 94, 82, and 87, but one of Kiko's teammates lost 2 points for an incomplete answer. How many points must Kiko get for her team to win the contest?
22. This season, Nora has 125 at bats in softball. She wants to have at least 140 at bats this season. What is the minimum number of at bats that Nora needs to reach her goal?
23. The average wind speed increased 19 mi/h from 8 A.M. to noon. The average decreased 5 mi/h from noon to 4 P.M. At 4 P.M., the average was at least 32 mi/h. What is the minimum value of the average wind speed at 8 A.M.?
24. Suppose it takes no more than 25 min for you to get to school. After you have traveled for 13.5 min, how much longer at most will it take you to get to school?
25. Joan has started a physical fitness program. One of her goals is to be able to run at least 5 mi without stopping. She can now run 3.5 mi without stopping. How many more miles does she have to run without stopping to achieve her goal?
26. Suppose you can get a higher interest rate on your savings if you maintain a balance of at least \$1000 in your savings account. The balance in your savings account is now \$1058. You deposit \$44.50 into your account. What is the largest amount that you can withdraw and still get the higher interest rate?

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

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| 27. $\frac{3}{4} + z \geq -\frac{3}{4}$ | 28. $12 + d + 3 \leq 10$ | 29. $v - \frac{3}{4} > 1\frac{1}{4}$ | 30. $8 + m > 4$ |
| 31. $2 + f > -3$ | 32. $-27 \neq w - 24$ | 33. $9 \geq y + 4$ | 34. $12 + t < 4 - 15$ |
| 35. $-14 > -16 + u$ | 36. $-7 \leq -11 + z$ | 37. $38 \geq 33 + b$ | 38. $k - 27 < -29$ |
| 39. $a + 8 \leq 10$ | 40. $b + 6 < -4$ | 41. $13 < 8 + k - 6$ | 42. $j + 1.3 > 2.8$ |