

## Practice 4-8

### Mixed Exercises

**Solve each inequality and graph the solution on a number line.**

- |                               |                                  |
|-------------------------------|----------------------------------|
| 1. $ s + 5  < 5$              | 2. $1 < 3x + 4 < 10$             |
| 3. $ k - 3  + 7 > 8$          | 4. $b - 2 > 18$ or $3b < 54$     |
| 5. $-4d > 8$ and $2d > -6$    | 6. $ t + 2  < 4$                 |
| 7. $-3 < 3 + s < 7$           | 8. $ 3j  + 4 \geq 10$            |
| 9. $ \frac{1}{2}x  < 1$       | 10. $g + 2 > -1$ or $g - 6 < -9$ |
| 11. $ 9 + 3y  < 6$            | 12. $3f > 15$ or $2f < -4$       |
| 13. $ d  > 1$                 | 14. $1 > 2h + 3 > -1$            |
| 15. $7 + 2a > 9$ or $-4a > 8$ | 16. $ 4.4z  > 6.6$               |
| 17. $ c - 1  \geq 2$          | 18. $h < -1$ or $h > 2$          |

**Model each situation with an inequality and solve.**

19. The crowd that heard the President speak was estimated to be 10,000 people. The actual crowd could be 750 people more or less than this. What are the possible values for the actual crowd size?
20. Susie has designed an exercise program for herself. One part of the exercise program is that she plans on walking between 25 and 30 miles, inclusive, each week. She plans to walk the same distance each day. If Susie walks five days a week, what is the range in miles that she should walk each day?
21. A box of cereal should weigh more than 629.4 g and less than 630.6 g to pass inspection. The box that the cereal is packaged in weighs 5.5 g. What are the possible weights for the cereal?
22. Carmen works in a sporting goods store. Her goal is to sell between \$500 and \$600 worth of sporting equipment every week. So far this week she has sold \$395 worth of equipment. What possible dollar amount of sales should Carmen make the rest of the week to reach her goal?

**Solve each inequality and graph the solution on a number line.**

- |                                     |                             |                                |
|-------------------------------------|-----------------------------|--------------------------------|
| 23. $ 2n - 1  \geq 1$               | 24. $ 2k - 3  > 3$          | 25. $ h - 2  < 1$              |
| 26. $2.3 + p > 1$ and $1.5p < 12.3$ | 27. $9 < x + 2 < 11$        | 28. $5m + 8 < 23$ or $6m > 48$ |
| 29. $ \frac{3}{2}x  \leq 3$         | 30. $-2 < x < -1$           | 31. $ \frac{1}{2}x + 1  > 1$   |
| 32. $ s - 4  + 7 \leq 9$            | 33. $ w - 3  > 4$           | 34. $6 > 4x - 2 > -6$          |
| 35. $t + 5 < 2$ or $3t + 1 > 10$    | 36. $2g > 12$ and $3g < 24$ | 37. $ 6x - 3  \geq 3$          |