

Practice B

For use with pages 353–358

Solve the equation.

1. $|x - 4| = 2$

4. $|x + 4| = 1$

7. $|3x + 5| = 7$

10. $|x + 8.5| = 10.5$

2. $|x + 3| = 9$

5. $|2x - 3| = 5$

8. $|6x + 3| = 21$

11. $|x - 1.8| - 7 = 3$

3. $|x - 5| = 8$

6. $|4x - 5| = 11$

9. $|3x - 7| = 26$

12. $|x + \frac{1}{3}| = \frac{5}{3}$

Solve the inequality.

13. $|x + 2| < 5$

16. $|3x - 6| > 3$

19. $|x - 3.2| \leq 8$

14. $|x + 4| > 9$

17. $|2x + 1| > 5$

20. $|3x + 2| - 1 > 9$

15. $|x - 3| \leq 1$

18. $|2x - 3| \leq 7$

21. $|x - 4| + 5 \leq 7$

Solve the inequality. Then graph the solution.

22. $|x + 7| \geq 1$

25. $|4x - 5| < 11$

23. $|x - 4| < 6$

26. $|3x + 2| \leq 8$

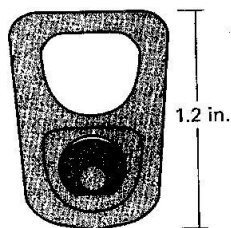
24. $|x - 6| \geq 2$

27. $|5x + 4| > 0$

28. **French Horn Range** A French horn student has a range of no more than 17 notes from the middle C. Let $x = 0$ correspond to middle C. Write an absolute value inequality that shows the range of notes the student is able to play.

29. **Shampoo Prices** The average price of a particular brand of shampoo is \$3.26. Depending on where you shop, the price may vary by as much as \$0.25. Write an absolute value inequality describing the possible prices of the shampoo. Solve the inequality.

30. **Tool and Die** A tool and die shop makes a metal pull tab for a pop can. The length of the tab is 1.2 inches. This measurement may have an error of as much as 0.002 inches. Write an absolute value inequality that shows the range of possible lengths of the tabs. Solve the inequality.



31. **Elevation** The highest elevation in North America is 20,320 feet *above* sea level at Mount McKinley. The lowest elevation is 282 feet *below* sea level in Death Valley. Find an absolute value equation that has the highest and lowest elevations in North America as its solution.

