

LESSON
6.6**Practice B***For use with pages 398–403***Solve the inequality. Graph your solution.**

1. $|x| \geq 5$



2. $|x| < 6.5$



3. $|x| \geq \frac{3}{2}$



4. $|x - 6| \leq 1$



5. $|x + 7| > 11$



6. $|10 - x| < 2$



7. $|-x - 5| < 1$



8. $|2x + 1| \geq 5$



9. $|3x - 2| \leq 7$



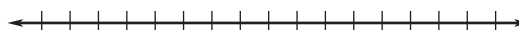
10. $|8 - 3x| \geq 7$



11. $|\frac{1}{2}x - 4| > 20$



12. $|1 - \frac{4}{3}x| < 5$



LESSON
6.6**Practice B** *continued*
For use with pages 398–403

Write the verbal sentence as an inequality. Then solve the inequality and graph your solution.

13. The distance between x and 8 is less than 14.



14. The distance between x and -5 is greater than or equal to 12.



15. The distance between 9 and x is less than or equal to 8.



16. The distance between 10 and $2x$ is greater than 34.



Tell whether the statement is *true* or *false*. If it is false, give a counterexample.

17. If a is a solution of $|x + 4| < 7$, then a is also a solution of $x + 4 < 7$.

18. If a is a solution of $|x - 6| \geq 4$, then a is also a solution of $x - 6 \leq -4$.

LESSON
6.6**Practice B** *continued*
For use with pages 398–403

- 19. DVDs** The average price of a standard DVD is \$15.99 with a standard deviation of \$4. Write an absolute value inequality that describes this range in prices.
- 20. Body Temperature** A canine's body temperature is considered to be normal if it is 101°F with an absolute deviation of 1.5°F .
- Write an absolute value inequality that represents the normal temperature range.
 - Solve the inequality. What is the normal temperature range?
- 21. Baseball** A baseball should weigh 5.12 ounces with an absolute deviation of 0.035 ounce. The circumference of a baseball should be 9.05 inches with an absolute deviation of 0.05 inch.
- Write absolute value inequalities that represent the ranges for the weight and circumference of a baseball.
 - Is a ball that weighs 5.16 ounces and has a circumference of 9 inches within the ranges that it should be? *Explain* why or why not.
 - What are the maximum and minimum circumferences of a baseball?
 - What are the maximum and minimum weights of a baseball?