Name _____ Date _____

LESSON 6.6

Practice A

For use with pages 398–403

Determine whether the given value is a solution of the inequality.

1. $4|x - 5| + 6 < 14; 10$

2. $2|x + 6| - 4 \geq 4; -2$

3. $-|x + 6| + 8 < 0; 2$

4. $3|x + 2| - 2 > 7; x = -3$

5. $-|x - 4| + 8 > 1; x = 10$

6. $2|x - 7| - 9 \geq 5; x = -1$

7. $-2|x + 1| + 4 \leq 8; x = -5$

8. $|3x + 6| - 10 < 3; x = -6$

9. $-|3 - 2x| + 4 > 0; x = -1$

Match the inequality with an equivalent inequality.

10. $|x| - 3 < 1$

11. $|x - 3| > 1$

12. $|x - 3| < 1$

A. $x > 4$ *or* $x < 2$

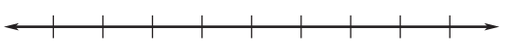
B. $x < 4$ *and* $x > 2$

C. $x < 4$ *and* $x > -4$

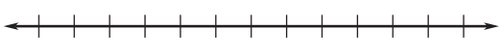
Solve the inequality. Graph your solution.

13. $|x| \leq 5$

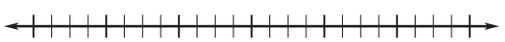
14. $|x| > 1$



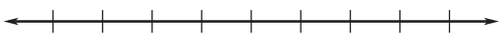
15. $|x| \geq 0.5$



16. $|x| \geq \frac{1}{4}$



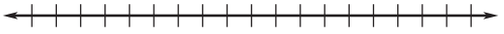
17. $|x| < 2.4$



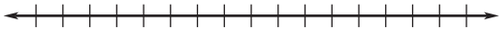
18. $|x| \leq 2.25$

19. $|x + 1| > 2$

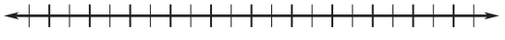
20. $|x - 3| \leq 5$



21. $|x + 5| \geq 1$



22. $|2x + 3| \leq 4$



Name _____ Date _____

LESSON 6.6

Practice A *continued*

For use with pages 398–403

Match the inequality with the description.

23. The distance between x and 2 is less than or equal to 4.

24. The distance between x and 4 is less than or equal to 2.

25. The distance between x and 4 is greater than or equal to 4.

26. The distance between x and 2 is greater than or equal to 2.

A. $|x - 4| \leq 2$

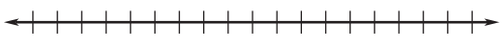
B. $|x - 2| \leq 4$

C. $|x - 2| \geq 2$

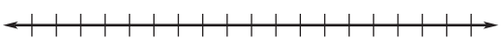
D. $|x - 4| \geq 4$

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

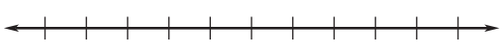
27. The distance between x and 3 is greater than 5.



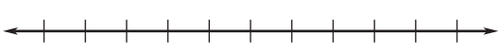
28. The distance between x and -2 is less than 7.



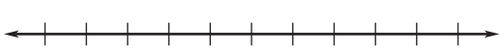
29. The distance between x and 4 is less than or equal to 2.



30. The distance between x and -6 is greater than or equal to 1.



31. The distance between x and -7 is less than 2.



32. Body Temperature An adult's body temperature is considered to be normal if it is 98.6°F with an absolute deviation of 1°F.

a. Write an absolute value inequality that represents the normal temperature range.

b. Solve the inequality. What is the temperature range?

33. Car Mileage Your car averages 32 miles per gallon on the highway. The actual mileage varies from the average by 5 miles per gallon.

a. Write an absolute value inequality that represents the mileage range of your car.

b. Solve the inequality. What is the mileage range?