Name _____ Class _____ Date _____

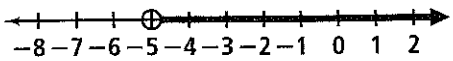
Practice 3-1

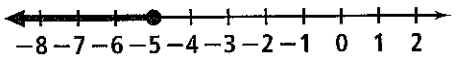
Inequalities and Their Graphs

Determine whether each number is a solution of the given inequality.

1. $x \leq -8$	**a.** -10	**b.** 6	**c.** -8
2. $-1 > x$	**a.** 0	**b.** -3	**c.** -6
3. $w < \frac{18}{7}$	**a.** 5	**b.** -2	**c.** $3\frac{1}{2}$
4. $0.65 \geq y$	**a.** 0.43	**b.** -0.65	**c.** 0.56
5. $2y + 1 > -5$	**a.** -4	**b.** -2	**c.** 4
6. $7x - 14 \leq 6x - 16$	**a.** 0	**b.** -4	**c.** 2
7. $n(n - 6) \geq -4$	**a.** 3	**b.** -2	**c.** 5

Write an inequality for each graph.

8. 

9. 

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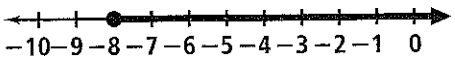
11. 

Write each inequality in words and then graph.

12. $x > 6$ **13.** $y \leq -10$ **14.** $8 \geq b$

15. $-4 < w$ **16.** $x < -7$ **17.** $x \geq 12$

Define a variable and write an inequality to model each situation.

18. The temperature in a refrigerated truck must be kept at or below 38°F.

19. The maximum weight on an elevator is 2000 pounds.

20. A least 20 students were sick with the flu.

21. The maximum occupancy in an auditorium is 250 people.

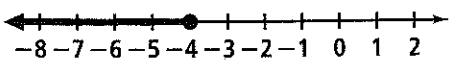
22. The maximum speed on the highway is 55 mi/h.

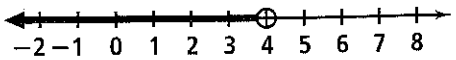
23. A student must have at least 450 out of 500 points to earn an A.

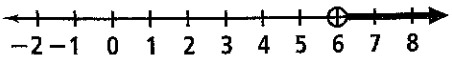
24. The circumference of an official major league baseball is at least 9.00 inches.

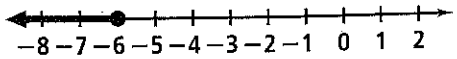
Match the inequality with its graph.

25. $6 < x$ **26.** $-6 \geq x$ **27.** $4 > x$ **28.** $x \leq -4$

A. 

B. 

C. 

D. 

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