

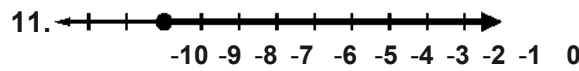
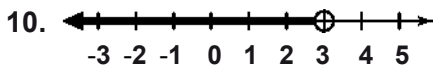
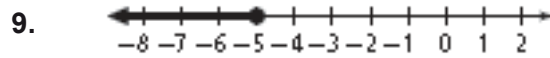
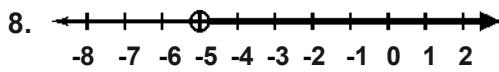
Practice 3-1

Inequalities and Their Graphs

Is each number 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.



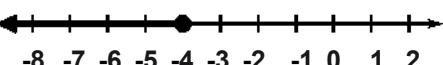
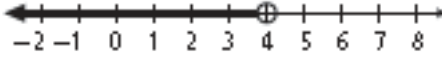
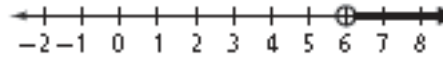
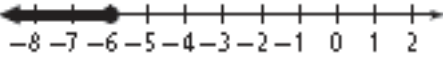
Graph each inequality.

- | | | |
|--------------|------------------|-----------------|
| 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 each inequality with its graph.

- | | | | |
|--|---|-------------|-----------------|
| 25. $6 < x$ | 26. $-6 \geq x$ | 27. $4 > x$ | 28. $x \leq -4$ |
| A.  | B.  | | |
| C.  | D.  | | |