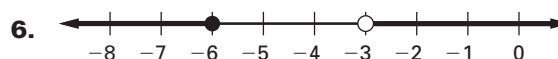**LESSON 6.4** **Practice A**
For use with pages 379–388

Write an inequality that is represented by the graph.

1.

2.

3.

4.

5.

6.
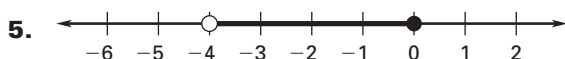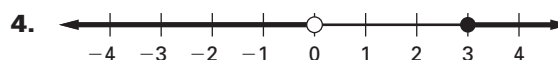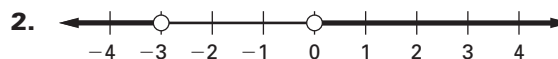
Sketch a graph of the inequality.

7. $-3 < x < 7$

8. $1 \le x \le 5$

9. $x < -6 \ or \ x \ge 2$

10. $x < 8 \ or \ x > 11$

11. $14 > x > 9$

12. $x \ge 4 \ or \ x \le 0$
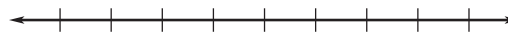
13. $x < -2 \ or \ x > 4$

14. $-3 < x < 4$

15. $x > -3 \ or \ x < -8$

16. $x \le -6 \ or \ x \ge -1$

Translate the verbal phrase into an inequality. Then graph the inequality.

17. All real numbers that are less than 3 *and* greater than 0

Practice A *continued*
For use with pages 379–388

18. All real numbers that are greater than 7 *or* less than 1

19. All real numbers that are greater than or equal to -2 *and* less than 4

Solve the inequality. Graph your solution.

20. $0 < x + 6 \leq 15$

21. $2x - 1 < 3 \ or \ 2x + 1 \geq 11$

22. Turnpike The Pennsylvania Turnpike Commission requires that all over-sized vehicles get a permit to travel on the roadway. A vehicle is considered over-sized if it is over 10 feet in width. However, the maximum width of a vehicle that the commission will allow on the roadway is 11.5 feet.

   a. Write a compound inequality that represents the widths w of over-sized vehicles that can travel on the Pennsylvania Turnpike.

   b. Graph the inequality.

23. Elevations The highest point in the United States is Mount McKinley in Alaska at an elevation of 6198 meters. The lowest point in the United States is Death Valley, California at an elevation of -86 meters.

   a. Write a compound inequality that represents the possible elevations e of land in the United States.

   b. Graph the inequality.

24. Radar A ship uses radar to detect approaching planes. A plane is shown as a blip on the radar. Use the diagram to write an inequality that describes the distance d of the plane from the ship.