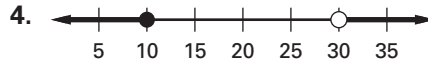
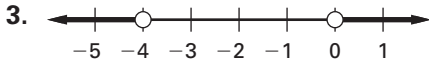
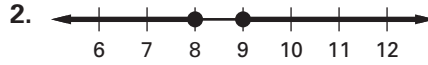
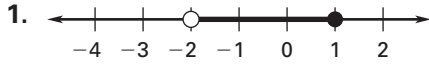


**Practice B**

For use with pages 346–352

Write an inequality that describes the graph shown.



Sketch a graph of the inequality.

- 5.  $-3 \leq x \leq 6$
- 6.  $0 < x < 5$
- 7.  $x < -1$  or  $x \geq 2$
- 8.  $x \leq 2$  or  $x > 3$
- 9.  $-2 > x \geq -10$
- 10.  $x \geq 4$  or  $x < -2$

Solve the inequality and graph its solution.

- 11.  $3 < x - 3 \leq 5$
- 12.  $-2 < 4 + x < 4$
- 13.  $2x + 9 > 17$  or  $5x + 10 < 10$
- 14.  $3x - 6 \leq 0$  or  $4x + 5 \geq -3$
- 15.  $7 < 1 - x < 13$
- 16.  $4 + 5x > 24$  or  $16 + x \leq 17$
- 17.  $1 \leq 3x \leq 6$
- 18.  $-3 \leq 2x + 1 < 9$
- 19.  $15 - 7x \leq -6$  or  $6x - 3 < -6$

Solve the inequality and graph its solution. Then check graphically whether the given  $x$ -value is a solution by graphing the  $x$ -value on the same number line.

- 20.  $-7 \leq 3 - 2x < 13; x = 1$
- 21.  $-8 < 2x + 4 \leq -2; x = -3$
- 22.  $4 - 3x \leq -8$  or  $3x - 1 \leq 8; x = 0$
- 23.  $5x + 1 < -14$  or  $6x - 1 > 7; x = -3$
- 24. **Record Low Temperatures** The lowest temperatures ever recorded in the United States for each month of the year are shown in the table. Write a compound inequality that represents the range of record low temperatures  $T$  in the United States.
- 25. You live 4 miles from the convenience store and your friend lives 2 miles from the same store. (a) Find the minimum distance  $d$  between your home and your friend's home. (b) Find the maximum distance  $d$  between your home and your friend's home. (c) Write an inequality that describes the possible distances  $d$  between your home and your friend's home.

| Month | Temp.                 | Month | Temp.                 |
|-------|-----------------------|-------|-----------------------|
| Jan.  | $-70^{\circ}\text{F}$ | July  | $10^{\circ}\text{F}$  |
| Feb.  | $-69^{\circ}\text{F}$ | Aug.  | $5^{\circ}\text{F}$   |
| March | $-50^{\circ}\text{F}$ | Sept. | $-9^{\circ}\text{F}$  |
| April | $-36^{\circ}\text{F}$ | Oct.  | $-33^{\circ}\text{F}$ |
| May   | $-15^{\circ}\text{F}$ | Nov.  | $-53^{\circ}\text{F}$ |
| June  | $2^{\circ}\text{F}$   | Dec.  | $-59^{\circ}\text{F}$ |

