Exercise numbers with a gray background indicate problems that the authors have designed to be solved *without a calculator*.

In Exercises 1–4, find the decimal form for the rational number. State whether it repeats or terminates.

1. $-37/8$ **2.** $15/99$

3. $-13/6$ **4.** $5/37$

In Exercises 5–10, describe and graph the interval of real numbers.

5. $x \leq 2$ **6.** $-2 \leq x < 5$

7. $(-\infty, 7)$ **8.** $[-3, 3]$

9. x is negative.

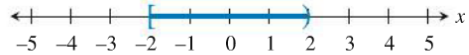
10. x is greater than or equal to 2 and less than or equal to 6.

In Exercises 11–16, use an inequality to describe the interval of real numbers.

11. $[-1, 1)$ **12.** $(-\infty, 4]$

13.

14.



15. x is between -1 and 2.

16. x is greater than or equal to 5.

In Exercises 17–22, use interval notation to describe the interval of real numbers.

17. $x > -3$

18. $-7 < x < -2$

19.

20.

21. x is greater than -3 and less than or equal to 4.

22. x is positive.

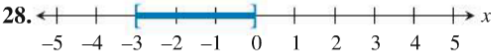
In Exercises 23–28, use words to describe the interval of real numbers.

23. $4 < x \leq 9$ **24.** $x \geq -1$

25. $[-3, \infty)$ **26.** $(-5, 7)$

27.

28.



In Exercises 29–32, convert to inequality notation. Find the endpoints and state whether the interval is bounded or unbounded and its type.

29. $(-3, 4]$ **30.** $(-3, -1)$

31. $(-\infty, 5)$ **32.** $[-6, \infty)$