## **Practice 1-3**

## **Exploring Real Numbers**

Name the set(s) of numbers to which each number belongs.

**2.** 
$$12\frac{1}{2}$$

**5.** 
$$\sqrt{7}$$

**8.** 
$$\sqrt{36}$$

Decide whether each statement is true or false. If the statement is false, give a counterexample.

- 9. Every whole number is an integer.
- 10. Every integer is a whole number.
- 11. Every rational number is a real number.
- **12.** Every multiple of 7 is odd.

Use <, =, or > to compare.

**14.** 
$$-\frac{1}{3}$$
 **2**  $-0.3$ 

**15**. 
$$-\frac{11}{5}$$

**16.** 
$$-\frac{1}{2} - \frac{5}{10}$$

17. 
$$-\frac{3}{8}$$
  $=$   $-\frac{7}{16}$ 

**18.** 
$$\frac{3}{4}$$
  $\frac{13}{16}$ 

Write in order from least to greatest.

**19.** 
$$-\frac{8}{9}, -\frac{7}{8}, -\frac{22}{25}$$

**20.** 
$$-3\frac{4}{9}$$
,  $-3.45$ ,  $-3\frac{12}{25}$ 

**21.** 
$$-\frac{1}{4}, -\frac{1}{5}, -\frac{1}{3}$$

**22.** 
$$-1.7, -1\frac{3}{4}, -1\frac{7}{9}$$

**23.** 
$$-\frac{3}{4}, -\frac{7}{8}, -\frac{2}{3}$$

**24.** 
$$2\frac{3}{4}$$
,  $2\frac{5}{8}$ , 2.7

Determine which set of numbers is most reasonable for each situation.

- 25. the number of dolphins in the ocean
- 26. the height of a basketball player
- 27. the number of pets you have
- 28. the circumference of a compact disk

Find each absolute value.

**29.** 
$$\frac{3}{10}$$

**32.** 
$$\left| -\frac{1}{2} \right|$$

**33.** Name the sets(s) of numbers to which each number in the table belongs. Choose among: whole numbers, integers, rational numbers, irrational numbers, and real numbers.

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