EXAMPLES 2 and 3

on p. 65 for Exs. 14-22 **CLASSIFYING AND ORDERING NUMBERS** Tell whether each number in the list is a whole number, an integer, or a rational number. Then order the numbers from least to greatest.

17.
$$-\frac{2}{3}$$
, -0.6, -1, $\frac{1}{3}$

18.
$$-0.01, 0.1, 0, -\frac{1}{10}$$

17.
$$-\frac{2}{3}$$
, -0.6, -1, $\frac{1}{3}$ **18.** -0.01, 0.1, 0, $-\frac{1}{10}$ **19.** 16, -1.66, $\frac{5}{3}$, -1.6

20.
$$-2.7, \frac{1}{2}, 0.3, -7$$

21.
$$-4.99, 5, \frac{16}{2}, -5.1$$

20.
$$-2.7, \frac{1}{2}, 0.3, -7$$
 21. $-4.99, 5, \frac{16}{3}, -5.1$ **22.** $-\frac{3}{5}, -0.4, -1, -0.5$

EXAMPLES 4 and 5

on p. 66 for Exs. 23-34

FINDING OPPOSITES AND ABSOLUTE VALUES For the given value of a, find -a and |a|.

23.
$$a = 6$$

24
$$a = -3$$

25.
$$a = -18$$

26.
$$a = 0$$

27.
$$a = 13.4$$

28.
$$a = 2.7$$

$$(29)$$
 $a = -6.3$

30.
$$a = -7.9$$

23.
$$a = 6$$
 24. $a = -3$ **25.** $a = -18$ **26.** $a = 0$ **27.** $a = 13.4$ **28.** $a = 2.7$ **29.** $a = -6.1$ **30.** $a = -7.9$ **31.** $a = -1\frac{1}{9}$ **32.** $a = -\frac{5}{6}$ **33.** $a = \frac{3}{4}$ **34.** $a = 1\frac{1}{3}$

32.
$$a = -\frac{5}{6}$$

33.
$$a = \frac{3}{4}$$

34.
$$a=1\frac{1}{3}$$

EXAMPLE 6

on p. 67 for Exs. 35-38 **ANALYZING CONDITIONAL STATEMENTS** Identify the hypothesis and the conclusion of the conditional statement. Tell whether the statement is true or false. If it is false, give a counterexample.

35. If a number is a positive integer, then the number is a whole number.

36. If a number is negative, then its absolute value is negative.

37. If a number is positive, then its opposite is positive.

38. If a number is an integer, then the number is a rational number.

39. TAKS REASONING Which number is a whole number?

(A)
$$\left| -\frac{18}{9} \right|$$
 (B) $-\frac{4}{3}$ **(C)** 1.6

B
$$-\frac{4}{3}$$

ERROR ANALYSIS *Describe* and correct the error in the statement.

40.

The numbers
$$-(-2)$$
, -4 , $-\left|8\right|$, and -0.3 are negative numbers.

The numbers
$$\begin{vmatrix} -3.4 \\ -0.2 \end{vmatrix}$$
, $-(-8)$, $-\begin{vmatrix} -0.2 \\ -0.87 \end{vmatrix}$ are positive numbers.

EVALUATING EXPRESSIONS Evaluate the expression when x = -0.75.

43.
$$|x| + 0.25$$
 44. $|x| - 0.75$ **45.** $1 + |-x|$

44.
$$|x| - 0.75$$

45.
$$1 + |-x|$$

46.
$$2 \cdot (-x)$$

47.
$$(-x) \cdot 3$$

48.
$$|x| + |x|$$

49.
$$-x + |x|$$

50. TAKS **REASONING** Which number is a solution of |x| + 1 = 1.3?

(B)
$$-0.3$$

51. CHALLENGE What can you conclude about the opposite of the opposite of a number? Explain your reasoning.

52. CHALLENGE For what values of a is the opposite of a greater than a? less than a? equal to a?