THINK AND DISCUSS

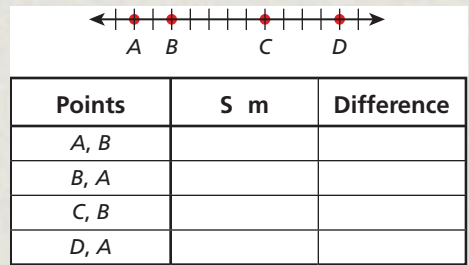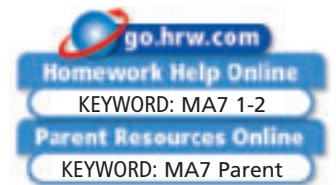**1.** The difference of -7 and -5 is -2. Explain why the difference is greater than -7.

2. GET ORGANIZED Copy and complete the graphic organizer. For each pair of points, tell whether the sum and the difference of the first point and the second point are positive or negative.

Know it! Note

A   B   C   D

Points	S m	Difference
A, B		
B, A		
C, B		
D, A		

1-2 Exercises

GUIDED PRACTICE

1. Vocabulary The sum of a number and its ___?___ is always zero. (*opposite* or *absolute value*)

SEE EXAMPLE **1**
p. 14

Add or subtract using a number line.

2. $-4 + 7$　　　**3.** $-3.5 - 5$　　　**4.** $5.6 - 9.2$　　　**5.** $3 - \left(-6\frac{1}{4}\right)$

SEE EXAMPLE **2**
p. 15

Add.

6. $91 + (-11)$　　　**7.** $4\frac{3}{4} + \left(-3\frac{3}{4}\right)$　　　**8.** $15.6 + x$ for $x = -17.9$

SEE EXAMPLE **3**
p. 16

Subtract.

9. $23 - 36$　　　**10.** $4.3 - 8.4$　　　**11.** $x - 2\frac{4}{5}$ for $x = 1\frac{1}{5}$

SEE EXAMPLE **4**
p. 16

12. Economics The Dow Jones Industrial Average (DJIA) reports the average prices of stocks for 30 companies. Use the table to determine the total decrease in the DJIA for the two days.

DJIA 1987	
Friday, Oct. 16	−108.35
Monday, Oct. 19	−507.99

PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
13–16	1
17–19	2
20–22	3
23	4

Extra Practice
Skills Practice p. S4
Application Practice p. S28

Add or subtract using a number line.

13. $-2 + 6$　　　**14.** $6 + (-2)$　　　**15.** $\frac{1}{4} - 12$　　　**16.** $-\frac{2}{5} + 6$

Add.

17. $-18 + (-12)$　　　**18.** $-2.3 + 3.5$　　　**19.** $x + 29$ for $x = -15$

Subtract.

20. $12 - 22$　　　**21.** $-\frac{3}{4} - \left(-\frac{1}{4}\right)$　　　**22.** $38 - x$ for $x = 24.6$

23. Meteorology A meteorologist reported that the day's high temperature was 17°F and the low temperature was −6°F. What was the difference between the day's high and low temperatures?

Evaluate the expression $n + (-5)$ for each value of n.

24. $n = 312$ **25.** $n = 5.75$ **26.** $n = -\dfrac{7}{12}$ **27.** $n = -7\dfrac{2}{5}$

Add or subtract.

28. $-8 - 3$ **29.** $-9 + (-3)$ **30.** $16 - (-16)$ **31.** $100 - 63$

32. $5.2 - 2.5$ **33.** $-4.7 - (-4.7)$ **34.** $\dfrac{2}{5} - \dfrac{7}{8}$ **35.** $\dfrac{2}{5} - \dfrac{3}{10}$

36. Business A restaurant manager lost $415 in business during the month of January. Business picked up in February, and he ended that month with a profit of $1580.

    a. What was the manager's profit after January and February?

    b. What if...? The restaurant lost $245 in business during the month of March. What was the manager's profit after January, February, and March?

Compare. Write <, >, or =.

37. $-4 - (-6)$ ▭ $-7 - 3$ **38.** $|-51|$ ▭ $|0|$ **39.** $3 - (-3)$ ▭ $0 - (-3)$

40. $-3 - 8$ ▭ $-22 + 11$ **41.** $|-10 + 5|$ ▭ $|-15|$ **42.** $9 + (-8)$ ▭ $-12 + 13$

43. Travel Death Valley National Park is located in California. Use the table to determine the difference in elevation between the highest and lowest locations.

Death Vauey NationauPark	
Location	**Euevation (ft)**
Badwater	−282
Emigrant Pass	5,318
Furnace Creek Airport	−21
Telescope Creek	11, 40

Critical Thinking Use examples to explain whether each statement is *sometimes, always,* or *never* true.

44. The difference between two negative numbers is positive.

45. The sum of two negative numbers is negative.

46. The difference of a negative number and a positive number is negative.

47. ///ERROR ANALYSIS/// Which is incorrect? Explain the error.

Ⓐ
$-5 - (-8)$
$-5 + (-8)$
-13

Ⓑ
$-5 - (-8)$
$-5 + (8)$
3

MULTI-STEP TEST PREP

48. This problem will prepare you for the Multi-Step Test Prep on page 38.

    a. A plane flies at a height of 1800 feet over a 150-foot-tall building. How far above the building is the plane? Draw a diagram to explain your answer.

    b. The same plane flies over a diver who is 80 feet below the surface of the water. How far is the plane above the diver? Draw a diagram to explain your answer.

    c. Subtract the diver's altitude of −80 feet from the plane's altitude of 1800 feet. Explain why this distance is greater than 1800 feet.