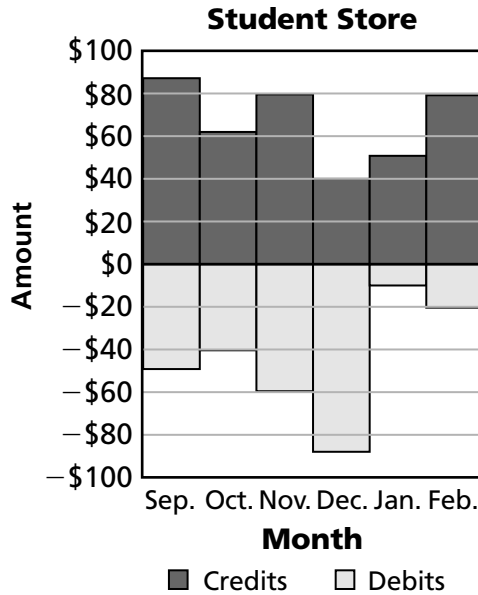


## Additional Practice

### Investigation 2

#### Accentuate the Negative

1. An amount paid to a business for goods or services is a *credit*, and an amount the business pays for goods, services, or debts is a *debit*. The chart below shows the total monthly credits and debits for the student store for the first six months of the school year.



- What is the total of the credits for September through February?
- What is the total of the debits for September through February?
- Did the store make or lose money over this time period? Explain your reasoning.
- Adding the credits and debits gives the profit or loss for a given period of time. Tell which months the store showed a loss and which months the store showed a profit. Explain.

**For Exercises 2–4, explain how you could use chips and a chip board to find the difference. Then, find the difference.**

2.  $-8 - 5$

3.  $3 - 9$

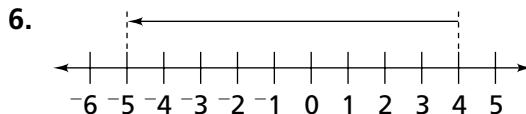
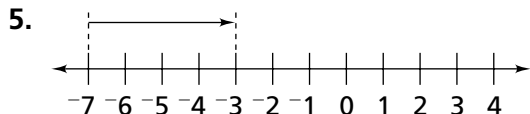
4.  $-6 - -12$

# Additional Practice *(continued)*

## Investigation 2

### Accentuate the Negative

Write both an addition sentence and a subtraction sentence to represent what is shown on the number line.



7. A chip board has 10 red chips and 10 black chips.
- What value is represented by this board?
  - If 2 red chips and 2 black chips are removed, what value do the remaining chips represent?
  - If 20 red chips and 20 black chips are added, what value do the chips represent?

Find the missing value.

- |                                    |                                    |  |
|------------------------------------|------------------------------------|--|
| 8. $\square + 5 = 7$               | 9. $5 + \square = -3$              | 10. $\square + -3 = -9$                    |
| 11. $7 - \square = 3$              | 12. $\square - 10 = -6$            | 13. $7 - \square = 12$                     |
| 14. $-6 - \square = 7$             | 15. $-3.4 - \square = -5.6$        | 16. $\frac{2}{3} - \square = 1$            |
| 17. $\square - 12 = -5$            | 18. $-4.5 - \frac{9}{2} = \square$ | 19. $3\frac{2}{5} + \square = \frac{2}{5}$ |
| 20. $\square + 7.6 = 3\frac{3}{5}$ | 21. $\square - -7.8 = 0$           | 22. $\square + \frac{-93}{10} = 10$        |

**Additional Practice** *(continued)***Investigation 2****Accentuate the Negative**

**23.** Decide whether the statement is always true, sometimes true, or always false. Explain your reasoning.

- a.** If a positive integer is subtracted from a negative integer, the difference is a negative integer.
- b.** If a positive integer is subtracted from a positive integer, the difference is a positive integer.

**24.** Write a complete fact family for each of the following:

**a.**  $-5 + +2 = -3$

**b.**  $-4 + -6 = -10$

**b.**  $+0.7 + +0.3 = +1.0$

**d.**  $-3.1 + -1.1 = -4.4$

**25.** Chris said that the fact family for  $-2 + +7 = +5$  should have facts:

$$-2 + +7 = +5$$

$$+5 = -2 + +7$$

$$+5 - -2 = +7$$

and

$$+7 = +5 - -2$$

$$+5 - +7 = -2$$

$$-2 = +5 - +7$$

Do you agree? Explain.

# Additional Practice *(continued)*

## Investigation 2

### Accentuate the Negative

For Exercises 26–30, show the addition on a number line, and give the sum.

26.  $+8 + -8$

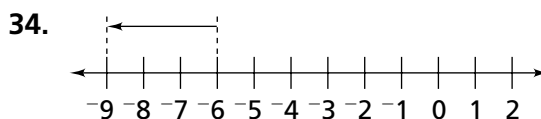
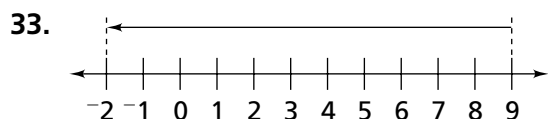
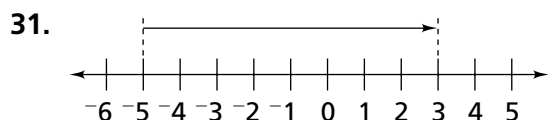
27.  $-2 + -5 + -4$

28.  $+8 + -9 + -2$

29.  $-8 + +8 + -3$

30.  $-10 + +5 + +4 + 1$

For Exercises 31–34, write the addition sentence illustrated by each figure.



35. Bill said that  $-7 - +4$  and  $+7 + -10$  both represent the same number.

a. Draw a chip board to represent each combination.

b. Do both combinations of chips represent the same number? Explain your reasoning.

**Additional Practice****Investigation 2****Accentuate the Negative**

36. Tell which one of the following sums is different from the others, and explain your reasoning:  $-3 + +5$ ,  $+8 + -5$ ,  $+7 + -5$ , and  $+12 + -10$ .

37. On Friday, Anessa has \$5. Over the weekend, she buys a granola bar for \$0.75, sees a movie for \$3.50, gets \$2 from her brother who is repaying a loan, and then spends \$1.25 at the arcade. How much money does Anessa have at the end of the weekend?

38. Scientists sometimes use a temperature scale called the Kelvin scale. The relationship between the Kelvin temperature scale and the Celsius temperature scale is expressed by the equation  $K = C + 273$  where K is degrees Kelvin and C is degrees Celsius.

a. What is  $-45^{\circ}\text{C}$  in degrees Kelvin?

b. What is  $71^{\circ}\text{K}$  in degrees Celsius?

c. If the temperature of a substance ranges from  $102^{\circ}\text{K}$  to  $230^{\circ}\text{K}$ , what is the temperature range in degrees Celsius?