Problem Solving

Understanding Integers

Write the correct answer.

1. The element mercury is used in thermometers because it expands as it is heated. Mercury melts at 38°F below zero. Write this temperature as an integer.

2. Denver, Colorado, earned the nickname “Mile High City” because of its elevation of 5,280 feet above sea level. Write Denver’s elevation as an integer in feet and miles.

3. The lowest temperature recorded in San Francisco was 20°F. Buffalo’s lowest recorded temperature was the opposite of San Francisco’s. What was Buffalo’s record temperature?

4. Greenland holds the record for the lowest temperature recorded on Earth. The absolute value of that temperature in degrees Fahrenheit is 65. What is Earth’s lowest recorded temperature?

5. In 1960, explorers on the submarine Trieste 2 set the world record for the deepest dive. The ship reached 35,814 feet below sea level. Write this depth as an integer.

6. In 1960, Joseph W. Kittinger, Jr., set the record for the highest parachute jump. He jumped from an air balloon at 102,800 feet above sea level. Write this altitude as an integer.

Circle the letter of the correct answer.

7. Which situation cannot be represented by the integer −10?
   A an elevation of 10 feet below sea level
   B a temperature increase of 10°F
   C a golf score of 10 under par
   D a bank withdrawal of $10

8. Paper was invented in China one thousand, nine hundred years ago. Which integer represents this date?
   F 1,900
   G 900
   H −1,900
   J −1,000

9. The elevation of the Dead Sea is about 1,310 feet below sea level. Which integer represents this elevation?
   A −1,310
   B −131
   C 131
   D 1,310

10. The quarterback had a 10-yard loss and then a 25-yard gain. Which integer represents a 25-yard gain?
    F −25
    G −10
    H 25
    J 10