

## LESSON

**Problem Solving****9-1 Understanding Integers**

Write the correct answer.

1. The element mercury is used in thermometers because it expands as it is heated. Mercury melts at  $38^{\circ}\text{F}$  below zero. Write this temperature as an integer.  
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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.  
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3. The lowest temperature recorded in San Francisco was  $20^{\circ}\text{F}$ . Buffalo's lowest recorded temperature was the opposite of San Francisco's. What was Buffalo's record temperature?  
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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?  
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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.  
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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.  
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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  $10^{\circ}\text{F}$   
**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