Write the correct answer.

1. The daytime temperature on Mercury can reach 430°C. The nighttime temperature can drop to \(-180°C\). How much can the temperature drop during one day?

2. An ice cream company reported a net profit of $24,000 in 2002 and a net loss of $11,000 in 2003. How much did the company’s profits change from 2002 to 2003?

3. A small business reported a net loss of $86,000 in 2004 and a net profit of $32,000 in 2005. How much did the company’s profits change from 2004 to 2005?

4. The daytime high temperature on the Moon can reach 130°C. At night, the temperature can drop to \(-110°C\). What is the difference between the high and low temperatures?

Choose the letter for the best answer.

5. The low point of the Tonga Trench, in the Pacific Ocean, is \(-10,630\) meters. The low point of the Mariana Trench, also in the Pacific Ocean, is 890 meters lower. What is the depth of the Mariana Trench?
   - A 10,630 meters
   - B \(-11,520\) meters
   - C \(-9,740\) meters
   - D 9,740 meters

6. On Wednesday night in St. Petersburg, Russia, the temperature is \(-11°C\). On the same night in Bombay, India, the temperature is 17°C. What is the difference in temperature?
   - F \(-6°C\)
   - G 50°C
   - H \(-187°C\)
   - J 28°C

7. Climax, Colorado, is the highest town in the United States at 11,560 feet. The lowest town is Calipatria, California, which is 185 feet below sea level. What is the difference in elevation?
   - A \(-185\) feet
   - B 11,375 feet
   - C 11,560 feet
   - D 11,745 feet

8. The low point of the Japanese Trench, in the Pacific Ocean, is \(-10,372\) meters. The low point of the Puerto Rico Trench, in the Atlantic Ocean, is 1,172 meters higher. What is the depth of the Puerto Rico Trench?
   - F \(-9,200\) meters
   - G 8,200 meters
   - H \(-1,172\) meters
   - J \(-11,544\) meters
**Challenge**

**25. Subtract-a-Fact**

Complete each temperature and elevation fact. Write the answer in the tables below.

**Temperature Facts**
1. Louisiana’s lowest recorded temperature is (−16°F).
2. The highest recorded temperature for Texas is (128°F).
3. The normal January temperature for Fairbanks, Alaska, is (−5°F).
4. The normal July temperature for Tampa, Florida, is (85°F).
5. The lowest temperature of 2000 in Detroit, Michigan, was (−42°F).
6. The highest temperature of 2000 in Norfolk, Virginia, was (100°F).
7. North Carolina’s lowest recorded temperature is (8°F).
8. South Carolina’s lowest recorded temperature is (−19°F).

**Elevation Facts**
9. Death Valley’s elevation is (−282 ft).
10. The Caspian Sea’s elevation is (−92 ft).
11. Mount Everest’s elevation is (29,035 ft).
12. Mount McKinley’s elevation is (11,200 ft).
13. Lake Eyre’s elevation is (−76 ft).
14. The Dead Sea’s elevation is (−1,348 ft).
15. Mount Etna’s elevation is (3,350 ft).
16. Lake Assal’s elevation is (−512 ft).

**Use Graphic Aids**

Brett borrowed $7 from his father to buy a CD. He paid back $3.

How much money does Brett have now? The number line will help you picture this problem.

-7 + 3 = −4

1. Beginning at 0, in which direction will you move first? **to the left**
2. How many places? **7**
3. Which direction do you move next? **to the right**
4. How many places? **3**
5. On what number do you end? **−4**

Brett does not have any money. He owes his dad $4. He has negative $4.

Sally and her friends made up a game with points. You can either win or lose up to ten points on each round of the game. After the first round, Sally’s team had 2 points. In the second round they lost 6 points. How many points was Sally’s team down by after the second round?

The number line will help you picture the problem.

6. Beginning at zero, which direction will you move first? **to the right**
7. Which direction will you move next? **to the left**
8. By how many points was Sally’s team down? **4**

**Problem Solving**

**26. Subtracting Integers**

Write the correct answer.

1. The daytime temperature on Mercury can reach 430°C. The nighttime temperature can drop to −180°C. How much can the temperature drop during one day?
   
   **610°C**

2. An ice cream company reported a net profit of $24,000 in 2002 and a net loss of $11,000 in 2003. How much did the company’s profits change from 2002 to 2003?
   
   **$35,000**

3. A small business reported a net loss of $86,000 in 2004 and a net profit of $32,000 in 2005. How much did the company’s profits change from 2004 to 2005?
   
   **$118,000**

4. The daytime high temperature on the Moon can reach 130°C. At night, the temperature can drop to −110°C. What is the difference between the high and low temperatures?
   
   **240°C**

Choose the letter for the best answer.

5. The low point of the Mariana Trench, in the Pacific Ocean, is −10,360 meters. The elevation of the Mariana Trench is
   
   A. 10,630 meters
   B. −11,520 meters
   C. −9,740 meters
   D. 9,740 meters

6. On Wednesday night in St. Petersburg, Russia, the temperature is −11°C. On the same night in Bombay, India, the temperature is 17°C. What is the difference in temperature?
   
   A. F 6°C
   B. 50°C
   C. −18°C
   D. 28°C

7. Climax, Colorado, is the highest town in the United States at 11,560 feet. The lowest town is Calipatria, California, which is 185 feet below sea level. What is the difference in elevation?
   
   A −185 feet
   B 11,375 feet
   C 11,560 feet
   D −11,745 feet

8. The low point of the Japanese Trench, in the Pacific Ocean, is −10,372 meters. The low point of the Puerto Rico Trench, in the Atlantic Ocean, is 1,172 meters higher. What is the depth of the Puerto Rico Trench?
   
   A. F −9,200 meters
   B. 9,200 meters
   C. 8,200 meters
   D. −11,520 meters

**Puzzles, Twisters & Teasers**

**27. Integer Invasion!**

Subtract each pair of integers. Write the letter on the line above the correct answer at the bottom of the page to answer the following question:

What do you call a pan spinning through space?

<table>
<thead>
<tr>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>−1</td>
<td>−12</td>
</tr>
<tr>
<td>6</td>
<td>−6</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>−10</td>
<td>−7</td>
</tr>
</tbody>
</table>

**Add the letters together.**

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