Find the mean for the data set.

1. **ANSWER:** 88%

2. **ANSWER:** 14

3. **Financial Literacy** Jamila babysat nine times. She earned $15, $20, $10, $12, $20, $16, $80, and $18 for eight babysitting jobs. How much did she earn the ninth time if the mean of the data set is $24?

   **ANSWER:** $25

4. **Model with Mathematics** Refer to the graphic novel frame for Exercises a–b.

   a. What is the mean number of wins for the Cranes? for the Panthers?
   b. Based on your answer for part a, is the mean a good measure for determining which team has the better record? Explain.

   **ANSWER:**
   a. 40; 40
   b. No; both means are equal.
11-1 Mean

5. A stem-and-leaf plot is a display that organizes data from least to greatest. The digits of the least place value form the leaves, and the next place-value digits form the stems. The stem and leaf plot shows Marcia’s scores on several tests. Find the mean test score.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Leaf</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>5 8 9</td>
</tr>
<tr>
<td>9</td>
<td>2 6</td>
</tr>
</tbody>
</table>

\[718 = 78\]

**ANSWER:** 88

6. **Multiple Representations** The graphic shows the 5-day forecast.

![5-DAY FORECAST](image)

a. **Numbers** What is the difference between the mean high and mean low temperature for this 5-day period? Justify your answer.

b. **Graph** Make a double-line graph of the high and low temperatures for the 5-day period.

**ANSWER:**

a. 19.2°F; The mean high temperature was 60°F and the mean low temperature was 40.8°F; therefore, the difference is 19.2°F.

b.

![Double-line graph](image)

7. **Reason Abstractly** Create a data set that has five values. The mean of the data set should be 34.

**ANSWER:**

Sample answer: Pages read: 27, 38, 26, 39, 40
8. **Persevere with Problems** The mean of a set of data is 45 years. Find the missing numbers in the data set \{40, 45, 48, ?, 54, ?, 45\}. Explain the method or strategy you used.

**ANSWER:**
Sample answer: 41 and 42; I used the **work backward** strategy.

9. Which of the following data sets does not have a mean of 12?
   A. 12, 11, 13
   B. 8, 16, 10, 14
   C. 12, 12, 12, 8
   D. 7, 12, 17

**ANSWER:**
C

Find the mean for the data set.

10. **ANSWER:**
8 bags

11. **ANSWER:**
56 in.

12. **ANSWER:**
9 cards

13. **ANSWER:**
26 tickets
11-1 Mean

14. Be Precise The table shows the approximate heights of some of the tallest U.S. trees.

<table>
<thead>
<tr>
<th>Tallest Trees in U.S.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree</td>
<td>Height (ft)</td>
</tr>
<tr>
<td>Western Red Cedar</td>
<td>160</td>
</tr>
<tr>
<td>Coast Redwood</td>
<td>320</td>
</tr>
<tr>
<td>Monterey Cypress</td>
<td>100</td>
</tr>
<tr>
<td>California Laurel</td>
<td>110</td>
</tr>
<tr>
<td>Sitka Spruce</td>
<td>200</td>
</tr>
<tr>
<td>Port-Orford-Cedar</td>
<td>220</td>
</tr>
</tbody>
</table>

a. Find the mean of the data.
b. Find the mean if the Coast Redwood is not included in the data set.
c. How does the height of the Coast Redwood affect the mean of the data?
d. Suppose Blue Spruce was included in the list and the mean decreased to 165 feet. What is the height of the Blue Spruce?

**ANSWER:**
a. 185 ft
b. 158 ft
c. Sample answer: An extreme value that is higher than the other values causes the mean of the data to be higher than most of the values in the table. So, the mean is less representative of the data.
d. 45 ft

15. The Student Council sells school calendars each year as a fundraiser. Eric was on the Student Council from 2007 to 2010. The bar graph shows the number of calendars he sold over the 4 years.

- What is the mean number of calendars Eric sold each year?
  A. 9
  B. 10
  C. 11
  D. 14

**ANSWER:**
C
11-1 Mean

16. **Short Response** The table shows the money raised by each booth at a craft sale.

<table>
<thead>
<tr>
<th>Northside Craft Sale</th>
<th>Booth</th>
<th>Money Raised ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Artwork</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Candles</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Holiday decorations</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Jewelry</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Picture frames</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>T-shirts</td>
<td>?</td>
</tr>
</tbody>
</table>

How much money, in dollars, was raised by the T-shirt booth if the mean amount raised was $59?

**ANSWER:**

80

17. Find the mean number of points scored in three games.

<table>
<thead>
<tr>
<th>Game</th>
<th>Points Scored</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
</tr>
</tbody>
</table>

**F.** 9  
**G.** 25  
**H.** 30  
**I.** 75

**ANSWER:**

G

**Compare the numbers using < or >.**

18. 18 [ ] 16  
**ANSWER:**

>  

19. 65 [ ] 63  
**ANSWER:**

>  

20. 22 [ ] 28  
**ANSWER:**

<  

21. 34 [ ] 31  
**ANSWER:**

>  

22. 75 [ ] 79  
**ANSWER:**

<  

23. 67 [ ] 57  
**ANSWER:**

>
24. The table shows the distances from Louisville to several cities.

<table>
<thead>
<tr>
<th>City</th>
<th>Distance (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlotte</td>
<td>474</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>100</td>
</tr>
<tr>
<td>Indianapolis</td>
<td>114</td>
</tr>
<tr>
<td>Lexington</td>
<td>75</td>
</tr>
<tr>
<td>St. Louis</td>
<td>265</td>
</tr>
</tbody>
</table>

a. How much farther is it from Louisville to Charlotte than from Louisville to Lexington?
b. Which city is the greatest distance from Louisville?

**ANSWER:**
a. 399 miles
b. Charlotte