Lessons 12.5 - 12.7 (CC.6.SP.5c, CC.6.SP.5d)

5. Three plates had 4, 8, and 9 muffins. The muffins are rearranged so that each plate contains the same number of muffins. How many muffins are on each plate?

Solve.

6. Carla finds the mass in kilograms of several rocks in her school’s geology lab. The masses are 4.5, 3.8, 4.8, 3.8, 4.2, and 4.1. Find the mean, median, and mode of Carla’s data.

Mean: 4.2
Median: 4.15
Mode: 3.8

7. Suppose a 0.7-kg rock is added to the geology lab in Problem 6. Find the new mean and median. Describe the effect that the outlier has on the mean and median.

Mean: 3.7
Median: 4.1
The mean decreases by 0.5, and the median decreases by 0.05.

8. Gavin records the times in minutes of several DVDs in his collection. The times are 125, 98, 150, 134, 203, 180, and 90. Find the mean, median, and mode of Gavin’s data.

Mean: 140
Median: 134
Mode: no mode

9. Suppose a 28-minute DVD is added to Gavin’s collection in Problem 8. Find the new mean and median. Describe the effect that the outlier has on the mean and median.

Mean: 126
Median: 129.5
The mean decreases by 14, and the median decreases by 4.5.

Lesson 12.8 (CC.6.SP.4)

Draw a dot plot of the data. Then use the plot to find the value that appears with the greatest frequency.

10. Megan opened several bags of pretzels and counted the number in each bag. The chart shows Megan’s data. Complete the dot plot.

```
<table>
<thead>
<tr>
<th>Number of Pretzels</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 11 9 8 13</td>
</tr>
<tr>
<td>12 10 9 11 8 13</td>
</tr>
<tr>
<td>14 15 12 11 8 7 9</td>
</tr>
<tr>
<td>13 12 15 10</td>
</tr>
</tbody>
</table>
```

11. What is the mode of the number of pretzels in a bag? 12