Lesson 13.5

11. The ages of students in a ballet class are 8, 4, 7, 7, 8, 9, 10, 7, and 9 years. Make a box plot of the data and find the range and interquartile range. Decide which measure better describes the data set and explain your reasoning.

The interquartile range; most of the data values are from 7 to 9, so the interquartile range is a better description of the data set.

![Ages of Ballet Students]

\[
\text{range} = 6 \quad \text{interquartile range} = 2
\]

Lesson 13.6

12. Use the information in the table to compare the data.

Player 2 typically scores higher than Player 1, but Player 2’s scores vary more.

<table>
<thead>
<tr>
<th>Player</th>
<th>Mean</th>
<th>Interquartile Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player 1</td>
<td>54</td>
<td>4</td>
</tr>
<tr>
<td>Player 2</td>
<td>60</td>
<td>9</td>
</tr>
</tbody>
</table>

Lessons 13.7 and 13.8

Ms. Gonzalez is collecting money for a charity. The table shows information about the donations that people made. Use this information for 13–16.

13. What is the range of donations? **$145**

14. What is the interquartile range of donations? **$60**

15. Make a box plot for the data.

![Donation Amounts]

16. Ms. Gonzalez hopes that most people donated at least $50. Do the statistics show that this is true? Explain your reasoning.

Possible answer: No; although the upper quartile and greatest amount are over $50, the median is only $40. This means at least half of the donations were less than $50.