

MEASURES OF VARIABILITY

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- A measure of variability is a way of describing how _____ the data is. It can also be described as how much the data _____ from the center.

RANGE

- The range is a measure of variability that represents the spread in data. It can be found by:
 1. Determining the least and greatest values in the data set
 2. _____ the two values to determine the range in data

Use your understanding of range to answer the questions below.

1. The list shows the number of pages in various novels:

286, 295, 307, 241, 396, 368

Range: _____

2. The Michaels family records their grocery bill each week. What is the range of the cost of their family grocery bill?

\$108.55, \$86.20, \$135.13, \$176.97, \$57.06

Range: _____

3. The Jonas family members read each evening and record their time. What is the range of the number of minutes read by the family?

120, 186, 62, 246, 98

Range: _____

4. The list shows the number of students in various college classes:

32, 19, 89, 102, 157, 25, 189, 36, 48

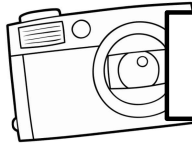
Range: _____

INTERQUARTILE RANGE

- The interquartile range (IQR) is a measure of variability that splits the data into four _____ quartiles. It represents the _____ of the data. It can be found by:
 1. Ordering the data from _____ to _____
 2. Finding the _____
 3. Finding the median of the lower and upper _____
 4. Subtracting to find the _____

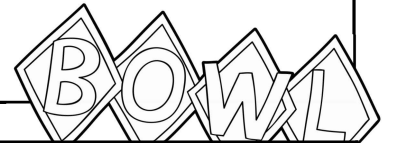
Use your understanding of interquartile range to answer the questions below.

5. The data set below represents the different costs of cameras at an electronics store.



\$28, \$44, \$108, \$36, \$59, \$71, \$66

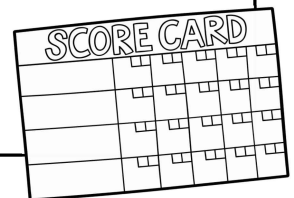
- Write the data from least to greatest.
- What is the minimum price?
- What is the maximum price?
- What is the median price?
- What is the median of the first half of the data? (first quartile)
- What is the median of the second half of the data? (third quartile)
- What is the interquartile range?
- Is the IQR relatively small or large? What does this tell you about the spread of the data?



6. The data set below represents the scores Raven and her friends made while bowling.

105, 90, 110, 80, 115, 75, 90, 110, 100

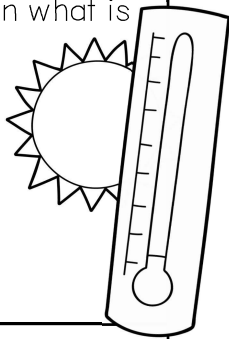
- Write the data from least to greatest.
- What is the minimum score?
- What is the maximum score?
- What is the median score?
- What is the median of the first half of the data (first quartile)?
- What is the median of the second half of the data (third quartile)?
- What is the interquartile range?
- What does the interquartile range tell you about the variability of the data?



Summarize today's lesson:

MEASURES OF VARIABILITY

Use your understanding of variability to answer the questions below.

<p>1. Calculate the range of the data set.</p> <p>6.5, 7.6, 9.1, 2.4, 8.8</p>	<p>2. Calculate the range of the data set.</p> <p>33, 38, 35.5, 39.25, 31.75</p>	<p>3. Calculate the range of the data set.</p> <p>625, 638, 619, 677, 638, 659</p>
<p>4. When looking for a job, Micah is told that the monthly salary has a range of \$876. He also knows that the starting salary is \$1,793 per month. What is the maximum amount of money that Micah can earn in one month with this position?</p>	<p>5. The range in temperature for the month of November in El Paso, Texas is 44°F. If the record high temperature is 92°F, then what is the record low temperature?</p> 	
<p>6. The data set below represents the different costs of refrigerators at a local home improvement store.</p> <p>\$777, \$498, \$619, \$379, \$895, \$1,256, \$1,052</p> <p>a. What is the median of the first half of the data? (first quartile) _____</p> <p>b. What is the median of the second half of the data? (third quartile) _____</p> <p>c. What is the interquartile range? _____</p>		
<p>7. The data set represents the number of students in each elementary school in a large city. Louis found the interquartile range to be 175. Do you agree or disagree? Why or why not?</p> <p style="text-align: center;">518, 579, 452, 537, 428, 603, 496</p> <p>_____</p> <p>_____</p>		