

Name \_\_\_\_\_

*Kmy*

**Statistics 6.SP.1 – Recognize a good statistical question.**

<p><b>6.SP.1</b> What does a good statistical question include?</p> <p>Variety of Answers</p>	<p><b>6.SP.1</b> What type of data can be gathered from a statistical question?</p> <p>Numerical &amp; Categorical</p>
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**Statistics 6.SP.2 - Describe a set of data by its center, spread, and shape (CENTER)**

<p>Describe a set of data by its center. Define...</p> <p><b>Mean</b> – Sum of Data ÷ Pieces of Data</p> <p><b>Median</b> – Middle # when in order</p> <p><b>Mode</b> – Occurs Most</p>	<p>Describe a set of data by its center.</p> <p>What does <i>mean</i> mean? Putting all of the Data in a pot &amp; giving everyone the same amount</p> <p>What does <i>median</i> mean? 1/2 of Data on left, 1/2 of Data on right</p>
<p>Review the following data and name the <b>mean, median, and mode.</b></p> <p>6, 8, 8, 9, 13, 15, 16, 18</p> <p>MEAN → <math>\frac{93}{8} = 11.625</math></p> <p>MEDIAN → 11</p> <p>MODE → 8</p>	<p>What is the <i>mode</i>?</p> <p>a. 1, 3, 4, 5, 6, 7, 12 = <u>No Mode</u></p> <p>b. 1, 2, 4, 5, 5, 7, 10 = <u>5</u></p> <p>c. 2, 4, 5, 6, 6, 7, 9, 9 = <u>6, 9</u></p>
<p>How do you find the <i>median</i> when you have an <i>even</i> set of data?</p> <p>55, 55, 60, 64, 67, 70</p> <p><math>\frac{64+60}{2} = \frac{124}{2} = 62</math></p>	<p>How do you find the <i>median</i> when you have an <i>uneven</i> set of data?</p> <p>43, 46, 47, 50, 54, 58, 59</p> <p>50</p>
<p><b>Solve:</b> Jessica wants earn a 95 test average in math class. She scores an 87 on her first test and a 100 on her second test. What does she have to score on her third test to reach her goal of a 95 average?</p> <p>95 x 3 ----- 285</p> <p>1st TEST 100 + 87 ----- 187</p> <p>285 - 187 ----- 98 = TEST #3</p>	<p>Find the missing values using the clues below:</p> <p>Mean = 15      Median = 14 Mode = 13      Range = 17 ✓</p> <p>6, 13, 13, 15, 20, 23</p> <p>① Range → 6 + 17 = 23</p> <p>② Median → 14 + Mode = 13</p> <p>Means 3rd &amp; 4th #s are 13 &amp; 15</p> <p>③ Mode = 13 so 2nd value is 13</p> <p>④ 6 × 15 = 90      6 + 13 + 13 + 15 + 20 + 23 = 90</p>

*Total Points Needed*

95  
x 3  
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285

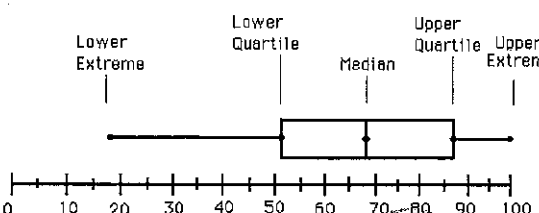
1st TEST 100  
+ 87  
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187

285  
- 187  
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98 = TEST #3

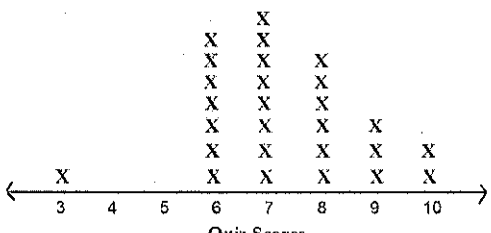
- ① Range → 6 + 17 = 23
- ② Median → 14 + Mode = 13
- Means 3rd & 4th #s are 13 & 15
- ③ Mode = 13 so 2nd value is 13
- ④ 6 × 15 = 90      6 + 13 + 13 + 15 + 20 + 23 = 90

Statistics 6.SP.2 - Describe a set of data by its center, spread, and shape  
(SPREAD)

*Key*

<p>Describe a set of data by its spread. Define...</p> <p><i>Range SPREAD OF ALL DATA</i></p> <p><i>IQR (Interquartile Range) SPREAD OF THE MIDDLE 50% OF DATA</i></p> <p><i>MAD (Mean Absolute Deviation)</i> <i>HOW FAR ON AVERAGE, EACH PIECE OF DATA IS FROM THE MEAN</i></p>	<p>Find the MAD of the data: 5, 11, 6, 2</p> <p><math>MEAN = \frac{24}{4} = 6</math></p> <p><math> 5 - 6  = 1</math>  <math> 11 - 6  = 5</math>  <math> 6 - 6  = 0</math>  <math> 2 - 6  = 4</math></p> <p><math>MAD = \frac{1+5+0+4}{4}</math></p> <p><math>\frac{10}{4} = 2.5</math></p>
<p>Find the range of the data: 1, 3, 4, 4, 5, 8, 9, 9, 10</p> <p><math>10 - 1 = 9</math></p>	<p>Find the IQR of the box and whisker plot.</p>  <p><math>8 - 5 = 3</math></p>

Statistics 6.SP.2 - Describe a set of data by its center, spread, and shape  
(SHAPE)

<p>Describe a set of data by its shape.</p>  <p>Quiz Scores</p>	<p>Symmetrical, skewed left or skewed right?</p> <p><i>Skewed Right</i></p> <p>Are there any clusters, gaps, peaks or outliers?</p> <p><i>Cluster 6-10 GAP 4-5 OUTLIER 3</i></p> <p>Unimodal, bimodal, no mode?</p> <p><i>UNIMODAL</i></p>
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