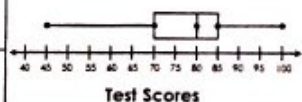
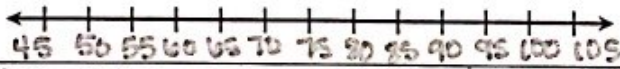


Name:

Date:

Topic:

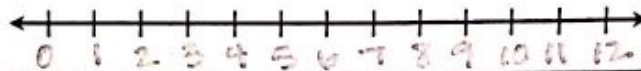
Class:

Main Ideas/Questions	Notes/Examples	
<b>BOX-AND-WHISKER Plot</b>		
<b>FIVE-NUMBER SUMMARY</b>	<p>The values used to create the box-and-whisker plot:</p> <ul style="list-style-type: none"> <li>• Minimum Value: _____</li> <li>• Lower Quartile: _____</li> <li>• Median: _____</li> <li>• Upper Quartile: _____</li> <li>• Maximum Value: _____</li> </ul>	
<b>QUARTILES</b>		
<b>INTERQUARTILE RANGE</b>		
<p><i>Drawing BOX-AND-WHISKER Plots</i></p> <p><i>calc steps</i></p> <ul style="list-style-type: none"> <li>• data</li> <li>• L1</li> </ul> <p>then,</p> <p>2nd data</p> <p>opt 2</p> <p>Frq: [1]</p> <p>data: [ONE]</p> <p>enter 3x</p>	<p>1. The resting heart rates, in beats per minute (bpm), of a group of people are given below. Find the five-number summary, draw the box-and-whisker plot, then answer the questions that follow.</p> <p><b>{55, 72, 64, 58, 50, 62, 70, 84, 92, 76, 68, 60}</b></p> 	<p>Minimum: _____</p> <p>Lower Quartile: _____</p> <p>Median: _____</p> <p>Upper Quartile: _____</p> <p>Maximum: _____</p>
	<p>a) What is the range?</p>	<p>b) What is the interquartile range?</p>
	<p>c) What percent have a resting heart less than 66 bpm?</p>	<p>d) What percent have a resting heart rate of no more than 74 bpm?</p>
	<p>e) What percent have a resting heart rate between 50 and 59 bpm?</p>	<p>f) What percent have a resting heart rate between 66 and 92 bpm?</p>

**Directions:** Draw the box-and-whisker plot and give the five-number summary for each data set.

2. Number of games won by the Detroit Lions in their last 10 seasons:

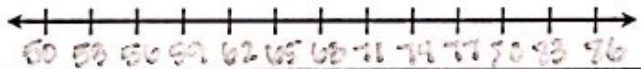
{9, 7, 11, 7, 4, 10, 6, 2, 0, 7}



Minimum: \_\_\_\_\_  
 Lower Quartile: \_\_\_\_\_  
 Median: \_\_\_\_\_  
 Upper Quartile: \_\_\_\_\_  
 Maximum: \_\_\_\_\_

3. The speed of 9 cars on the highway:

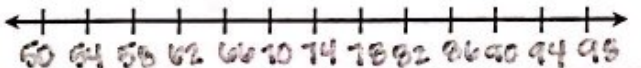
{62, 77, 80, 54, 65, 67, 58, 63, 70}



Minimum: \_\_\_\_\_  
 Lower Quartile: \_\_\_\_\_  
 Median: \_\_\_\_\_  
 Upper Quartile: \_\_\_\_\_  
 Maximum: \_\_\_\_\_

4. The high temperature in the last 15 days:

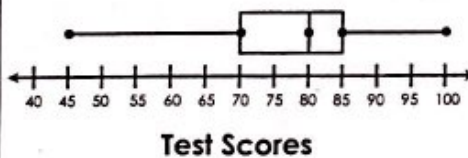
{58, 67, 80, 72, 69, 59, 59, 75, 83, 84, 84, 76, 64, 64, 71}



Minimum: \_\_\_\_\_  
 Lower Quartile: \_\_\_\_\_  
 Median: \_\_\_\_\_  
 Upper Quartile: \_\_\_\_\_  
 Maximum: \_\_\_\_\_

*Analyzing  
 BOX-AND-WHISKER  
 Plots*

5. The box-and-whisker plot below shows the test scores for a group of 24 students.



a) What is the median score?

b) What percent of the students scored between 70 and 85?

c) How many students scored between 45 and 85?

d) If Kate got an 87, how did she do compared to the class?

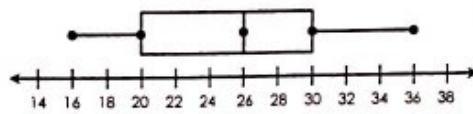
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



6. The fuel efficiency, in miles per gallon, of a group of cars is shown below.



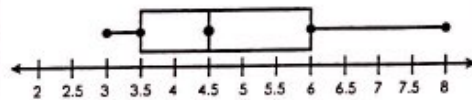
Fuel Efficiency

a) What is the interquartile range?

b) What percent of the cars have a fuel efficiency greater than 20 mpg?

c) What percent of the cars have a fuel efficiency less than 26 mpg?

7. The battery life, in hours, of a group of 16 laptops is shown below.



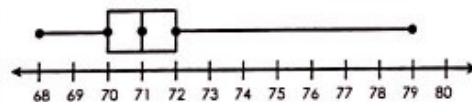
Battery Life

a) Identify the lower and upper quartiles.

b) What percent of the laptops have a battery life of at least 6 hours?

c) How many laptops have a battery life less than 4.5 hours?

8. Fifty golfers are competing in a golf tournament. The scores in the first round are shown below.



Golf Scores

a) Identify the minimum and maximum values.

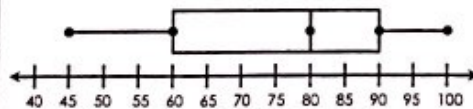
b) What percent of the golfers had a score greater than 70?

c) In order to advance to the next round, golfers can not score above 72. How many are not moving on?

*Comparing*  
**BOX-AND-WHISKER**  
*Plots*

9. Mr. Athens and Mrs. Gillman gave the same test to their math classes. The scores of each class are shown below.

Mr. Athens' Class



Mrs. Gillman's Class

a) What is the difference in the median score?

b) Which class had the greater range of scores?

c) Which class do you feel did better overall? Explain.