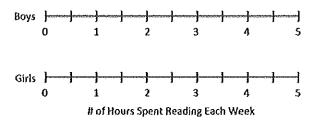
Practice

1. Mrs. Jenkin's $7^{\rm th}$ grade class is trying to determine whether boys or girls at the middle school level spend more time reading outside of school each week. A random sample of boys and girls was taken. The data is shown below.

of Hours Spent Reading Outside of School Each Week

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Boys	1	0	1.5	2	1	5	3	0	1.5	2	2.5	0	1	1	1
Girls	2	4	1.5	2	1.5	3.5	4	3.5	2.5	2	2.5	1	2	2.5	3

a. Plot these values on the graphs below. Use a dot plot.



- b. Describe the shape and variability for each graph.
- c. Find the sample mean for boys and girls.

Boys' mean =

Girls' mean =

d. Calculate the mean absolute deviation for boys and girls.

Boys' MAD =

Girls' MAD =

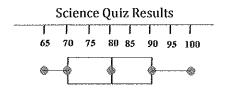
e. Find the number of MADs that separate the two sample means using the formula below. Is there a difference in sample means that is meaningful? What can you conclude about the hours spent reading by both boys and girls?

difference of the means

the larger MAD

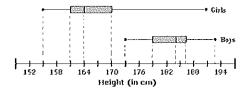
box-and-whisker Plots

(3.) The box-and-whisker plot below shows the quiz scores of Mr. Bell's 4^{th} period science class. Use the plot to answer the following questions:



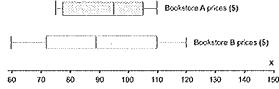
- a. What was the median score?
- b. What percent of the students scored between a 70 and a 90?
- c. What was the lowest score on the quiz?
- d. If 8 kids scored between a 65 and 70, how many kids took the quiz?
- e. What is the range of the data?
- f. What is the inner-quartile range of the data?

2) The box-and-whisker plots below show the heights of girls and boys in a PE class. Use the plots to answer the following questions:



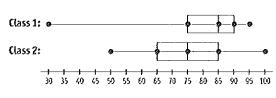
- a. Who has a greater measure of center?
- b. Who has a greater amount of variability/variation?
- c. What percent of the girls are less than 170 cm?
- d. What percent of the boys are less than 179 cm?
- e. If 12 girls are greater than 170cm, how many girls are in the class?
- f. About how much greater is the median for the boys than for the girls?

The box-and-whisker plots below compare the prices of books at two different bookstores. Use the plots to answer the following questions:



- a. Which store has a greater inner-quartile range?
- b. Which bookstore has a greater measure of center?
- c. Which bookstore would have a greater MAD?
- d. What is the least expensive book at bookstore B?
- $\frac{1}{150}$ e. What percent of the books in store B are between \$90 and \$120?

5.) The box-and-whisker plots below compare the exam scores of two classes. Use the plots to answer the following questions:



- a. What is the inner-quartile range for class 2?
- b. Which class would have a greater MAD?
- c. How much greater was the median score of class 1 than class 2?
- d. If 18 students in class 2 scored between a 50 and 85, how many students are in the class?
- e. If 7 students in class 1 scored below a 75, how many students are in class 1?
- f. What percent of the students in class 2 scored between a 65 and an 85?

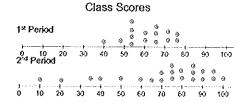
Name	Date	Class
dot Plots		

(d.) The dot plots below show the ages of campers at two different camps. Use the plots to answer the following questions:

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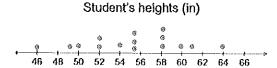
- a. Which camp has a greater measure of center?
- b. Which camp has more variation/variability?
- c. Which camp would have a greater mean age?
- d. Which camp would have a greater MAD?
- e. Which camp would be better represented by the median than the mean?

1.) The dot plots below show the scores of two classes on an exam. Use the plots to answer the following questions:



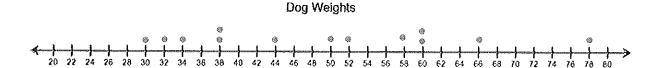
- a. Which class has a greater range?
- b. Which class has a greater mean & median?
- c. Which class has a greater mean-absolute-deviation?
- d. Which class would be better represented by the median than the mean?
- e. Which class has more variability?

3.) The dot plot below shows the heights in inches of several students in a PE class. Use the dot plot to find each calculation:



- a. What is the mean height of the students?
- b. What is the median height of the students?
- c. What is the range of the heights of the students?
- d. What is the mean-absolute-deviation?

 \mathbf{q} .) The dot plot below shows the weights of several dogs at a doggie daycare. Use the dot plot to find each calculation:



a. What is the mean?

- b. What is the median?
- c. What is the range?

d. What is the MAD?

e. What is the mode?