

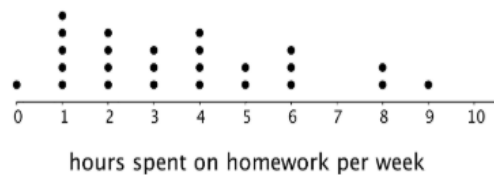
NAME: _____

Unit 8: Data Sets & Distributions End-of-Unit Study Guide
(calculator active)

1) Select **all** the statistical questions about students and teachers at a middle school.

- a) What is the most popular subject at school?
- b) How many hours per week do students spend on homework?
- c) How many science teachers are in the school?
- d) How old is the Track 2 English Teacher?
- e) What time does the school day start at Pine Hollow?
- f) How many hours of sleep do students get on a school night?

2) This dot plot shows the number of hours per week that these 25 students reported spending on homework. Select **all** the true statements about the data used to build the dot plot.

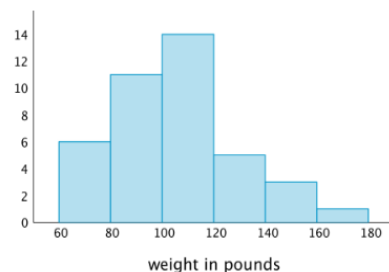


- a) The difference between the most hours spent on homework and the fewest hours spent on homework is 8 hours.
- b) The mean amount of time spent on homework was 3.5
- c) The median time spent on homework was 3 hours.
- d) Forty percent of students spend 2 hours or less on their homework each week.
- e) The students spent at least 8 hours on homework per week.
- f) 1 % of students spent 0 hours on homework

3) Select **all** statements that must be true.

- a) All dogs weighed at least 60 pounds or more.
- b) A total of 6 dogs were weighed.
- c) Fewer dogs weighed 90 pounds than 110 pounds.
- d) All dogs weighed less than 180 pounds
- e) 6 dogs weighed less than 80 pounds.

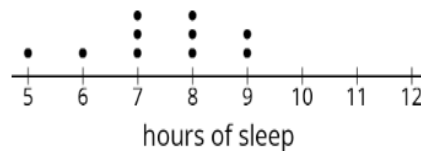
Here is a **histogram** that shows some dog weights in pounds.



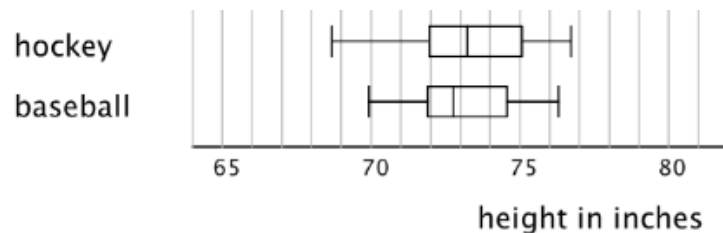
4) Using the histogram from #3, how many dogs were weighed? Explain how you know.

5) Using the histogram from #3, how many more dogs weighed between 60 to 79 pounds than 140 to 159?

6) Here is a dot plot of a set of data. What is the mean of the data set?



7) The heights of students on the hockey and baseball teams are shown in these box plots.

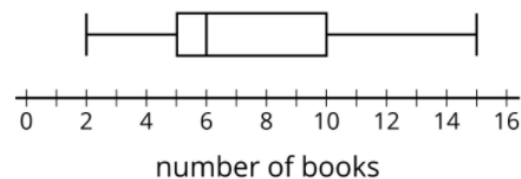


Select **all** the statements that must be true.

- A. The median height for hockey is higher than the median height for baseball
- B. The mean height for hockey is higher than the mean height for baseball.
- C. The range for hockey is higher than the range for baseball.
- D. The tallest player is on the baseball team.
- E. All hockey players are 70 inches or taller.

The class recorded the number of books read between January and May. The results are displayed in a box plot.

8) What is the median number of books read?



9) What is the interquartile range?

Here is the recorded number of minutes students typically spend doing homework each night.

20, 20, 30, 35, 40, 45, 30, 60, 0, 70

10) What is the median number of minutes spent on homework each night?

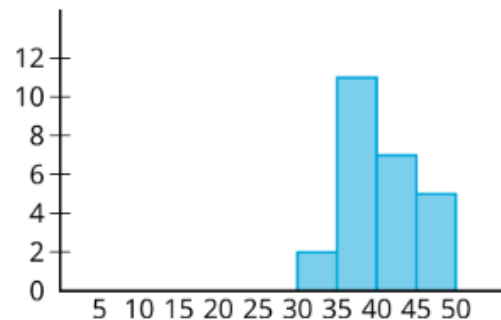
11) What is the mean number of minutes spent on homework each night?

12) What is the range of the data?

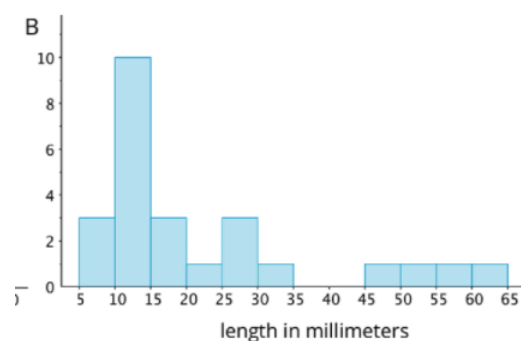
13) What is the interquartile range of the data?

The following data shows the ages of teachers in the school.

14) How many teachers are in the school?



15) The lengths of earthworms were recorded and the results are displayed in the histogram below. What is the best measure of center to use to describe the “typical” length of the earthworms measured?



16) The mean for 5 numbers is 20. Four of the five numbers are 18, 21, 22 and 23. What is the missing number in the data set?