Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ May 8, 2018

CC Algebra

**Standard Deviation & IQR – Homework**

1. For each of the following data sets, use your calculator to help find the interquartile range and the population standard deviation. Show your calculation for the IQR. Round all non-integer values to the nearest tenth.
2. 4, 6, 8, 10, 15, 19, 22, 25
3. 3, 3, 4, 5, 5, 6, 6, 7, 7, 8
4. What is the interquartile range of the data set represented in the box plot shown below? 
5. Which of the following best measures the average distance that a data value lies away from the mean?
6. Mean
7. Standard deviation
8. Median
9. Range
10. Which of the following data sets would have the largest standard deviation?
11. {3, 3, 4, 5, 5}
12. {72, 73, 74, 75, 76}
13. {2, 8, 18, 26, 35}
14. {8, 10, 12, 14. 16}
15. Two surveys were completed of household that have video enabled devices (televisions, smart phones, tablets, etc). Each survey was done with 30 participants. In Survey A the survey was random, in Survey B the survey only included families with at least one teenager. The dot plots of the results are shown below.



1. Enter the data into your calculator and use it to calculate the mean number of devices, the interquartile range, and the sample standard deviation of both sets. Round all non-integers to the nearest tenth.
2. Which of the two survey data sets had the greatest variation in the data? Explain based on the statistics you found in part A.