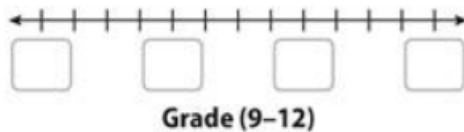


The list gives the grade level for each member of the marching band at JFK High. (Example 1)

9, 10, 9, 12, 11, 12, 10, 10, 11, 10, 10, 9, 11, 9, 11, 10, 12, 9, 11

1. Make a dot plot of the data.

JFK High Marching Band Member Grade Levels



2. Determine whether the data set $\{7, 10, 54, 9, 12, 8, 5\}$ has an outlier. Then determine the effect of the outlier. (Explore Activity)

- a. Determine if $54 > Q_3 + (1.5) \text{IQR}$.

$$Q_3 = \underline{\hspace{2cm}} \quad Q_1 = \underline{\hspace{2cm}}$$

$$\text{IQR} = \underline{\hspace{2cm}}$$

$$Q_3 + (1.5) \text{IQR} = \underline{\hspace{2cm}}$$

Is 54 an outlier? $\underline{\hspace{2cm}}$

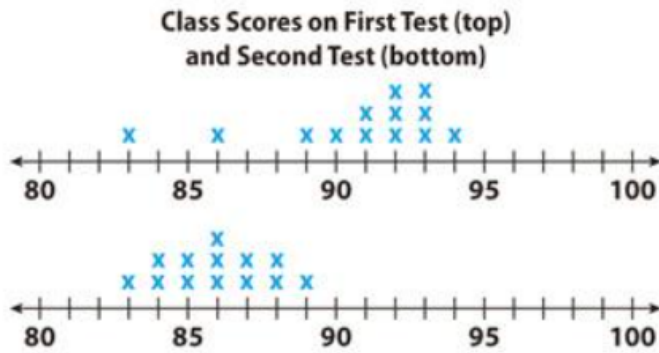
- b. Complete the table.



	Mean	Median	Range
Set without 54			
Set with 54			

- c. How does the outlier affect the mean, the median, and the range?

Use the dot plots below to answer Exercises 3–6. (Example 2)



3. How do the medians of the two sets of test scores compare?

4. For which test is the distribution of scores symmetric? _____
5. For which test is the median greater than the mean? _____
6. Which measure of center is appropriate for comparing the two sets of test scores? _____