Name _____ Date _____ Class_____

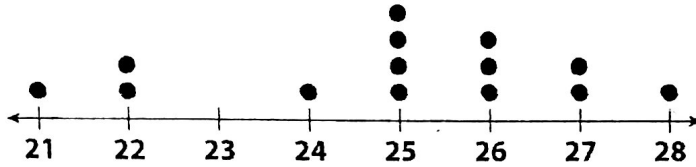## LESSON 11-1 Comparing Data Displayed in Dot Plots
Practice and Problem Solving: A/B

Find the values for each dot plot.
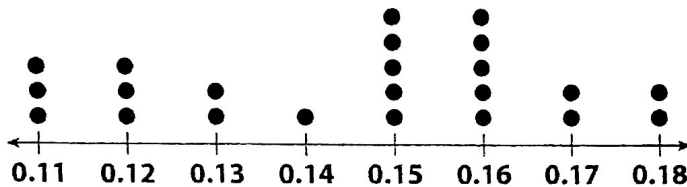
1.

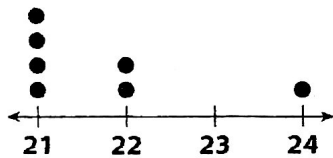Range: _____   Median: _____   Mode: _____

2.

Range: _____   Median: _____   Mode: _____
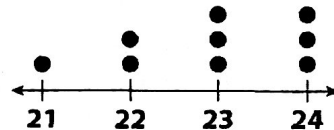
Compare the dot plots by answering the questions.

Plot A   Plot B

3. How do the ranges compare?

_____

4. Compare the number of elements.

_____

5. How do the modes compare?

_____

6. How do the medians compare?

_____

7. Describe the distribution of the dots in each plot.

_____

Name _____ Date _____ Class_____

Comparing Data Displayed in Dot Plots
Reading Strategies: Understanding Vocabulary

Central measures of a data set should be used that give the most accurate picture of how the data are distributed. This can have an effect on how one data set compares to another.

Mean, Median, and Mode

These three central measures are used most often in describing a data set. However, depending on how the data are distributed, one measure can be more accurate than another.

Example
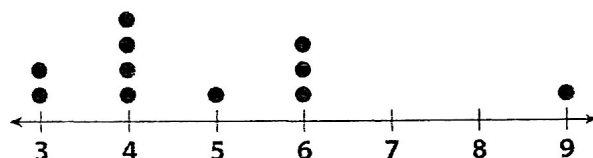
| Mean | $\longrightarrow$ | Add the values and divide by the *number* of values. |
		$(2 \times 3 + 4 \times 4 + 1 \times 5 + 3 \times 6 + 1 \times 9) \div 11 = $ **4.9**
Mode	$\longrightarrow$	Occurs most frequently: **4**
Median	$\longrightarrow$	The "middle" value: **4**

Two of the central measures have the same value, but the third is larger. This is often caused by an **outlier** data value that is much larger or smaller than most of the data values. The outlier also has an effect on the **range**, another measure of how widely data values are distributed. The outlier has an effect on the mean, too.

Outlier $\longrightarrow$ **9**   **Range** $\longrightarrow$ 9 – 3, or **6**

Without the outlier, the range would be 3 and the mean would be 4.5.

Find the central measures with and without the outlier.
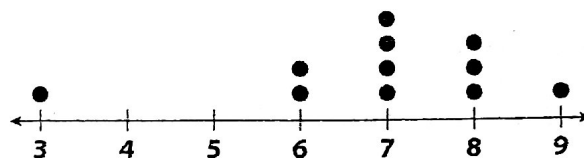
1. With the outlier

2. Without the outlier

_____   _____