NAME _____ DATE _____ PERIOD _____

8-1 Study Guide and Intervention

Line Plots

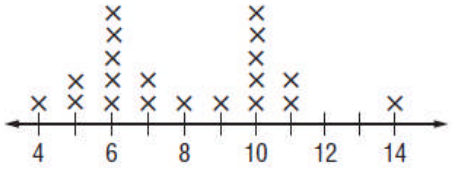
A **line plot** is a diagram that shows the frequency of data on a number line.

Example 1 **SHOE SIZE** **The table shows the shoe size of students in Mr. Kowa's classroom. Make a line plot of the data.**

Shoe Sizes			
10	6	4	6
5	11	10	10
6	9	6	8
7	11	7	14
5	10	6	10

Step 1 Draw a number line. Because the smallest size is 4 and the largest size is 14, you can use a scale of 4 to 14 and an interval of 2.

Step 2 Put an "×" above the number that represents the shoe size of each student.



Example 2 **Use the line plot in Example 1. Identify any clusters, gaps, or outliers and analyze the data by using these values. What is the range of data?**

Many of the data cluster around 6 and 10. You could say that most of the shoe sizes are 6 or 10. There is a gap between 11 and 14, so there are no shoe sizes in this range. The number 14 appears removed from the rest of the data, so it would be considered an outlier. This means that the shoe size of 14 is very large and is not representative of the whole data set.

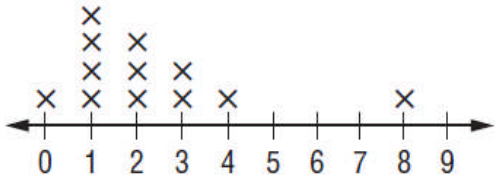
The greatest shoe size is 14, and the smallest is 4. The range is 14 – 4 or 10.

Exercises

PETS **For Exercises 1–3 use the table at the right that shows the number of pets owned by different families.**

Number of Pets			
2	1	2	0
3	1	1	2
8	3	1	4

1. Make a line plot of the data.



2. Identify any clusters, gaps, or outliers. **Sample answer: Many of the data cluster around 1 and 2. There is a gap between 4 and 8. 8 is an outlier.**

3. What is the range of the data? **8**