

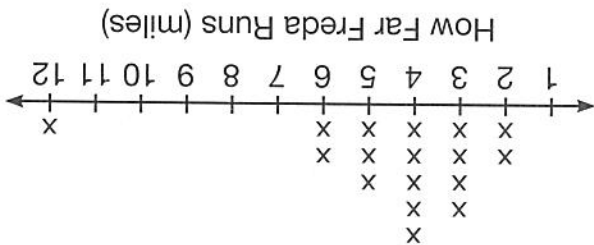
# Line Plots

Name \_\_\_\_\_

Reteaching  
14-1

The table below gives the number of miles Freda ran over a period of days. A line plot shows data along a number line. Each X represents one number in the data set.

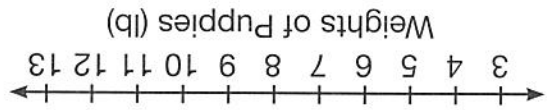
Miles Run	Days
12	1
6	2
5	3
4	5
3	4
2	2



On the line plot, each X represents 1 day. An outlier is a number in a data set that is very different from the rest of the numbers.

1. Is there an outlier in the data set above? Explain.

2. Complete the line plot to show the data in the table for puppies' weights at birth. Identify the outlier in the data set.



Weight (lb)	Number of Puppies
13	1
7	1
6	0
5	2
4	3
3	5

# Line Plots

Name \_\_\_\_\_

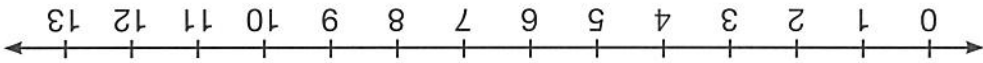
Practice  
14-1

Number of Rabbits in Each Litter	Litters
1	/
2	///
3	###
4	////
5	####
6	#####
7	#####
8	#####
9	///
10	###
11	///
12	/

1. Make a line plot of the number of rabbits in each litter.

a. Write a label at the bottom.

b. Put Xs on the number line to show the number of rabbits in a litter.



2. How many Xs are shown for 6?

3. What is the number of rabbits that appears in a litter most often?

- A 3 rabbits      B 4 rabbits      C 5 rabbits      D 6 rabbits

4. Is the 1-rabbit litter an outlier?

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# Data from Surveys

Reteaching  
14-2

Name \_\_\_\_\_

In a survey, each student was asked this question. What color is your math notebook? Here are the responses: red, blue, green, red, yellow, yellow, red, blue, red, yellow, blue.

## How to display data collected from surveys:

The data can be displayed in a frequency table or a line plot.

### Frequency Table

- Count the number of times each different response was made.  
red: ////; blue: ///; green: /; yellow: ///

- Construct a frequency table. The table lists each response and its frequency. (The frequency of a response is how many times it was made.)

- Give the frequency table a title that clearly explains what information is in the table.

Survey Question: What color is your math notebook?	
Notebook Color	Number
Red	4
Blue	3
Green	1
Yellow	3

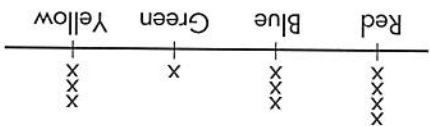
### Line Plot

- Count the number of times each different response was made.  
red: ////; blue: ///; green: /; yellow: ///

- Construct a line plot. The plot lists each response along a horizontal line. The frequencies are stacked as x's above each response.

- Give the line plot a title that clearly explains what information is in the plot.

### Survey Question: What color is your math notebook?



- How many students responded to the notebook survey? \_\_\_\_\_
- Which color are the greatest number of math notebooks? \_\_\_\_\_
- Describe how you might pick a sample of 50 minivan owners that represent the minivan owners of your state.

Name \_\_\_\_\_

# Data from Surveys

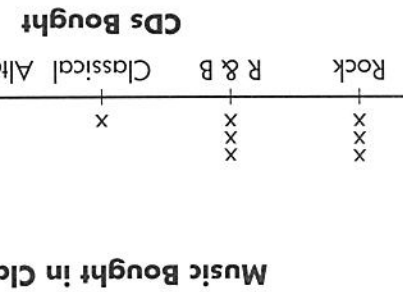
Practice  
14-2

Ms. Chen's class took a survey on how many minutes it took each student to get to school. The results are below:

12 14 5 22 18 12 12 6 14 18 12 5 11

1. What are the highest and lowest times?  
\_\_\_\_\_

2. Make a line plot to display the data.  
Students in Ms. Chen's Class



3. If the entire class responded to the survey, how many students are in the class?  
\_\_\_\_\_

4. What information was collected about music?  
\_\_\_\_\_

5. Use the line plot above. Which type of CDs did students buy most often?

- A Alternative    B Classical    C Country    D Rock

6. Write a survey question that might gather the following information. "In one school there are 6 sets of twins, 2 sets of triplets, and one set of quadruplets."  
\_\_\_\_\_

# Making Line Plots

Name \_\_\_\_\_

14-3  
Reteaching

Joshua surveyed his classmates to collect data on their shoe sizes. He found the following information.

$7\frac{1}{2}$	7	$5\frac{1}{2}$	$6\frac{1}{2}$
$8\frac{1}{2}$	6	$7\frac{1}{2}$	$5\frac{1}{2}$
6	$7\frac{1}{2}$	$5\frac{1}{2}$	6
$6\frac{1}{2}$	6	8	6
$7\frac{1}{2}$	$7\frac{1}{2}$	8	$7\frac{1}{2}$

When you want to organize the data into a line plot, first organize the data. List the shoe sizes from least to greatest. Fill in the missing data below.

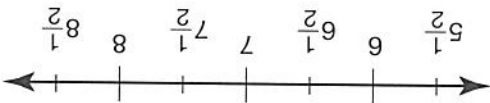
\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

Then make a table to show the frequency of the values.

Shoe Size	Tally	Frequency
$5\frac{1}{2}$		
6		
7		
8		

Now draw a line plot.

Shoe Sizes



For questions 1-2, draw a line plot.

1.

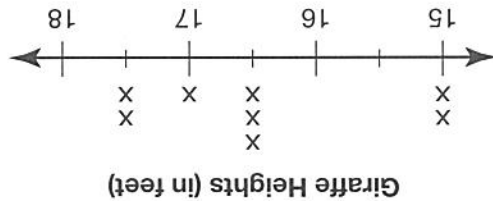
$13\frac{1}{2}$	13	$14\frac{1}{4}$	$14\frac{1}{2}$
$13\frac{1}{2}$	13	$14\frac{1}{2}$	$14\frac{1}{2}$
13	$13\frac{1}{2}$	13	$14\frac{1}{2}$

2.

$2\frac{1}{2}$	5	$2\frac{3}{4}$	$4\frac{1}{4}$
5	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$
$2\frac{3}{4}$	$4\frac{1}{4}$	5	$4\frac{1}{4}$
$4\frac{1}{4}$	$4\frac{1}{4}$	$4\frac{1}{2}$	$4\frac{1}{2}$

# Making Line Plots

1. Which statement best describes the heights of the giraffes shown in the line plot?

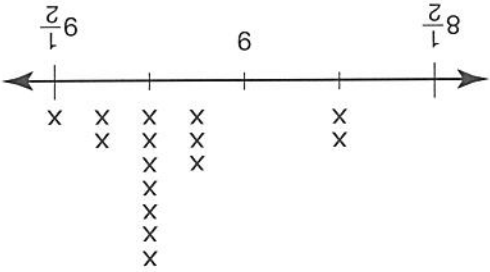


- A The shortest giraffe is  $16\frac{1}{4}$  feet tall.  
 B The tallest giraffe is  $17\frac{1}{2}$  feet tall.  
 C Most of the giraffes are 17 feet tall.  
 D There are four giraffes in the data set.

2. Marietta purchased 15 cucumbers to make pickles. The lengths of the cucumbers in inches are shown in the chart. Draw a line plot to show the lengths of the cucumbers.

$3\frac{1}{2}$	$3\frac{3}{4}$	$3\frac{1}{4}$
3	$3\frac{1}{2}$	3
$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{1}{4}$
$3\frac{1}{2}$	$3\frac{3}{4}$	$3\frac{1}{4}$

4. Write a frequency chart that matches the data in the line plot.



3. Draw a line plot to represent the data in the table.

Value	Tally	Frequency
$8\frac{1}{4}$		2
$7\frac{1}{2}$		2
$7\frac{1}{8}$		5
$6\frac{3}{4}$		2
$5\frac{1}{4}$		3

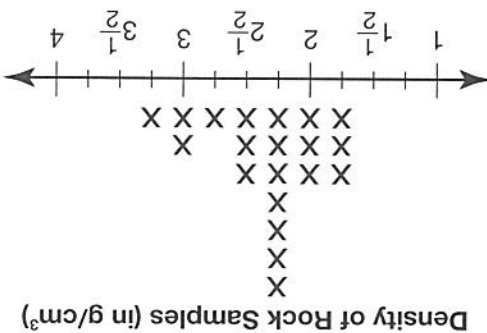
5. **Writing to Explain** Write a description of the data in the line plot.

# Measurement Data

Name \_\_\_\_\_

Reteaching  
14-4

You have learned how to draw line plots. Now you can analyze the data in a line plot. Mrs. Calderwood separated the rock samples in her science classroom using their densities. She made a line plot of the data.



For questions 1-4, use the line plot above.

1. Find how many rocks were used in the line plot.

2. Which density occurs most often?

3. What is the difference between the greatest density and the least density?

4. Monique says that  $3\frac{1}{2}$  g/cm<sup>3</sup> is an outlier. Is she right or wrong? Explain.

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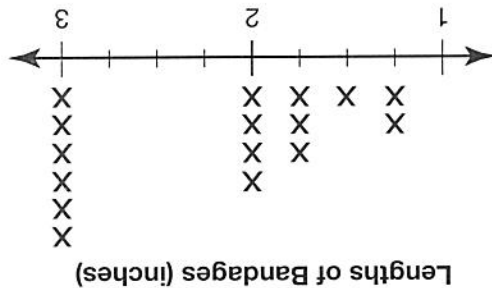
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Name \_\_\_\_\_

# Measurement Data

Practice  
14-4

Arianna counted the different sized bandages in her first aid kit. She made a line plot of the data. Use this line plot to answer the questions.



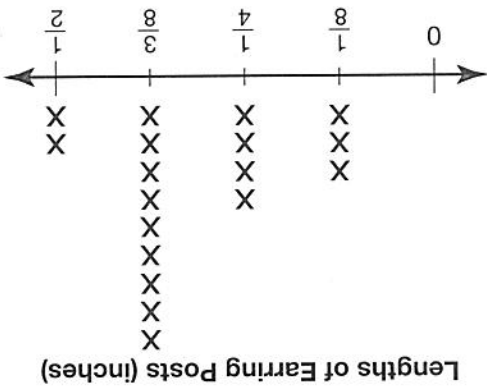
1. How many bandages did Arianna count?
2. What length bandage does Arianna have the most of?

3. Write an equation to show the total length of the bandages if they are placed end-to-end.

Madison sorted the earrings in her jewelry box. The line plot shows the lengths of each post.

4. Write a statement to describe Madison's jewelry.

5. Why do you think that there are an even number of earring posts?



6. Make an educated guess as to why most of the posts are  $\frac{3}{8}$ -inch long.



# Problem Solving: Writing to Explain

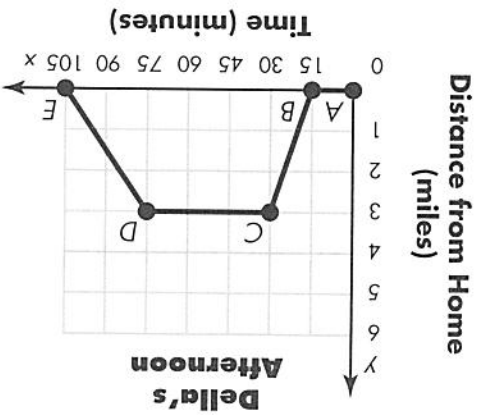
14-5  
Reteaching

Every Wednesday after Della comes home from school she attends a violin lesson, gets a ride to and from the lesson, and has a snack before going to the lesson. The line graph below gives more specific data about how Della spends her time and how far she travels from home after school on a Wednesday.

Looking at where the points are plotted on the graph can help you decide how Della spent her time. This data can help you write a story about how Della spent her Wednesday afternoon.

### Story:

Della comes home and sits down to have a snack for 15 minutes. After this she gets a ride to her violin lesson which is 3 miles away. Della spends 45 minutes at the lesson. She gets another ride home that lasts for 30 minutes.

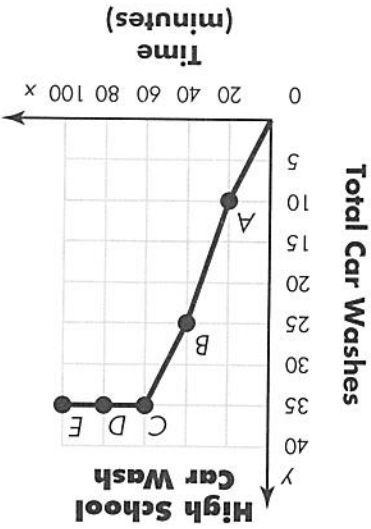


For 1 through 3, use the High School Car Wash graph. Students at Larkin High School had a car wash to raise funds for the music club. The car wash began at 11:00 A.M.

1. Look at Point A. How many cars were washed in the first 20 minutes?

2. Look at Point B. How many more cars were washed in the next 20 minutes?

3. Write a story to fit the data on the graph.



Name \_\_\_\_\_

# Problem Solving: Writing to Explain

For 1 through 5, use the graph below. The graph shows Cindy's errands.

1. Look at the coordinates at Point A. What does Point A represent?

2. What does Point B represent?

3. What do you think happened between Points B and C?

4. Which of the following statements is supported by the graph?

- A Ten minutes occurred between Points B and C.
- B Cindy stopped for different amounts of time.
- C Cindy spent more time stopping than walking.
- D Cindy traveled 8 blocks in 30 minutes.

5. Write a complete story to match the data from the graph.

