

Name _____ Date _____

Use Line Plots

Mr. Moreno wants students to collect data about their classroom. Roberto's group wants to know how far each student lives from school. They organized their information in a table.

Distance from School	
Student	Distance From School (miles)
Michael	$\frac{1}{2}$
Irma	$2\frac{1}{2}$
Roberto	$3\frac{1}{2}$
Lee Yah	$2\frac{1}{2}$
Nicholas	$1\frac{1}{2}$
Jessie	2
Nila	$\frac{1}{2}$
Tanya	3
Keenya	$\frac{1}{2}$
Luis	$\frac{1}{2}$
Ana	4
Romesh	3
Grace	1
Frank	3
Linda	$\frac{1}{2}$
Jerome	2
John	1
Shannon	3
Jacob	2
Maya	2
Jackie	1
Ming	4

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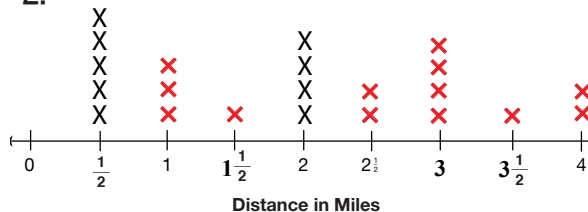
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**Use Line Plots (SAB pp. 11–15)
Questions 1–12**

1. Distance Students Live From School

Distance from School (miles)	Tallies	Number of Students
$\frac{1}{2}$		5
1		3
$1\frac{1}{2}$		1
2		4
$2\frac{1}{2}$		2
3		4
$3\frac{1}{2}$		1
4		2

2. Distance Students Live From School



3. **A.** 2 miles

B. $\frac{1}{2}$ mile

C. Possible response: I think the median is better because most of the students live more than $\frac{1}{2}$ mile from school so that is not typical.

4. 13 students; Possible response: I counted all of the Xs that were above the $\frac{1}{2}$, 1, $1\frac{1}{2}$, and 2 mile distance.

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1. Organize the information from Roberto's group to count the number of students who walk each distance. Make a table similar to the one below.

D Distance from School (miles)	Tallies	N Number of Students
$\frac{1}{2}$		5
1		3

2. Roberto's group started to make a line plot to represent the data they collected. Use the Distance Students Live from School data table you organized to complete the line plot.

Distance Students Live From School

3. **A.** What value represents the median number of miles students live from school?
B. What value represents the mode for the distance students live from school?
C. Which value, the median or the mode, is a better representation of the data? Explain your thinking.
4. How many students live 2 or fewer miles from school? Show or tell how you know.

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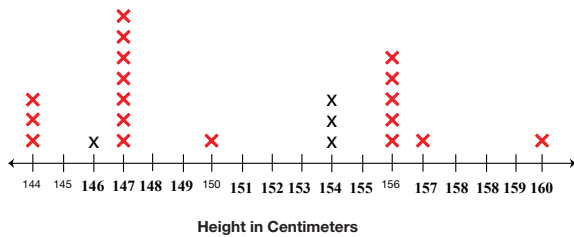
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5.* People in Your Household

Number of People in Your Household	Tallies	Number of Students
0		0
1		0
2		2
3		3
4		6
5		4
6		5
7		0
8		2

- Number of People in Your Household and Number of Students
- 4 people
- A.* $4\frac{1}{2}$ people
B.* No, it would not be possible to have $\frac{1}{2}$ of a person in a family.

9. Student Heights



- Height in Centimeters and Number of Students
- A. 147 centimeters
B. $148\frac{1}{2}$ centimeters
C. Possible response: I know there are 22 students in the class so I started at 144 centimeters and counted 11 students, then I counted back 11 students starting at 160 centimeters. I found the median would be halfway between 147 centimeters and 150 centimeters.
- Possible response: I think a new student would be 147 or 148 centimeters tall because that is close to the average height for the classroom.

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Jessie's group decided to find out how many people lived in each household. They asked each student in the classroom to record the number of people living in their household. Here is the line plot they made using their data.

People in Your Household

Number of People in Your Household

- Use the line plot to organize the information from Jessie's group into a data table.
- What are the two variables represented in your data table?
- What value represents the mode for the number of people in each household?
- A. What value represents the median for the number of people in each household?
B. Does any household have exactly the median number of people? Explain your answer.

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9. Use the data table to complete the line plot.

Student Heights

- What two variables did Ana's group study?
- A. What value represents the mode for the heights of students in Mr. Moreno's class?
B. What value represents the median height for students?
C. Show or tell how you can use the line plot to find the median height.
- Predict the height of a new student entering Mr. Moreno's classroom. Explain how you made your prediction.

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*Answers and/or discussion are included in the lesson.