

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 |

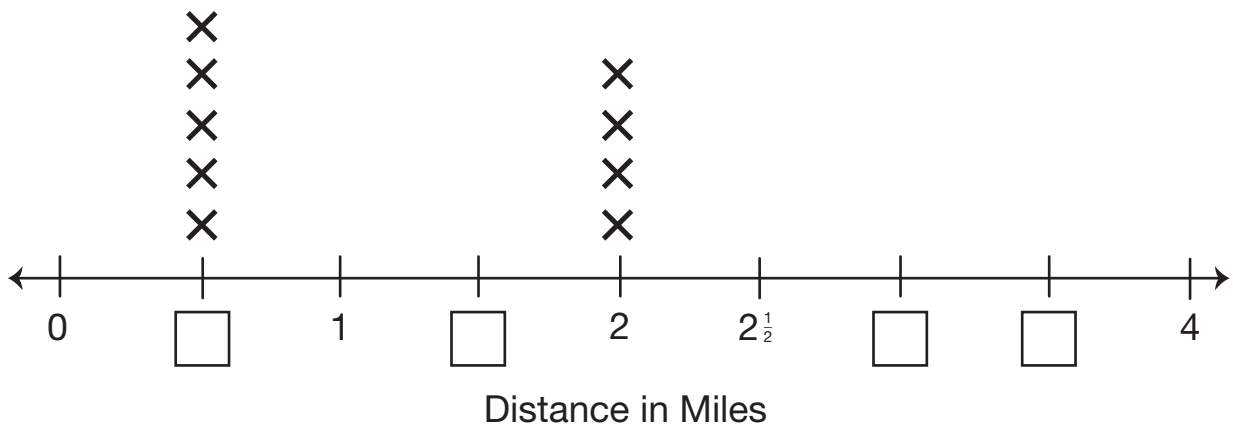
1. Organize the information from Roberto's group to count the number of students who walk each distance. Make a table similar to the one below.

Distance Students Live from School

| <i>D</i> Distance from School (miles) | Tallies | <i>N</i> 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.

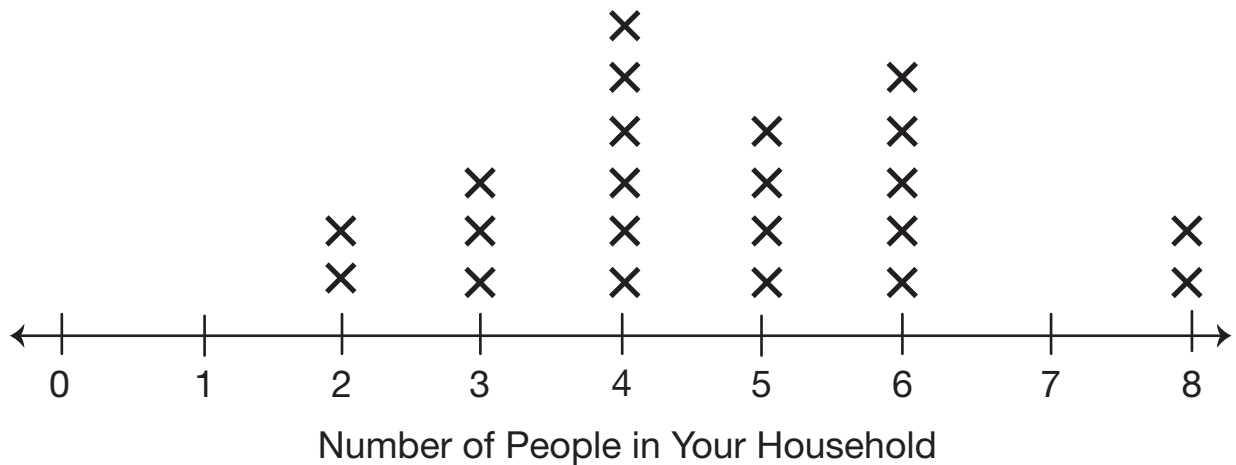
Distance Students Live from School



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.

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



5. Use the line plot to organize the information from Jessie’s group into a data table.

6. What are the two variables represented in your data table?

7. What value represents the mode for the number of people in each household?

8. **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.

 **Check-In: Questions 9–12**

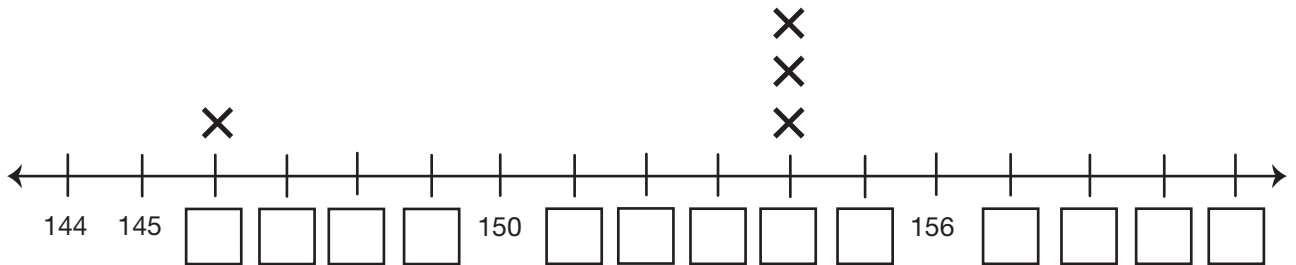
Ana’s group decided to collect data about the height of each student. They decided to measure heights using centimeters. They organized their work in a data table.

Student Heights

| S Student Height (in cm) | Tallies | N Number of Students |
|---------------------------------------|---------|--------------------------------|
| 144 | | |
| 145 | | |
| 146 | | |
| 147 | | |
| 148 | | |
| 149 | | |
| 150 | | |
| 151 | | |
| 152 | | |
| 153 | | |
| 154 | | |
| 155 | | |
| 156 | | |
| 157 | | |
| 158 | | |
| 159 | | |
| 160 | | |

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

Student Heights



10. What two variables did Ana's group study?

11. **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.

12. Predict the height of a new student entering Mr. Moreno's classroom. Explain how you made your prediction.