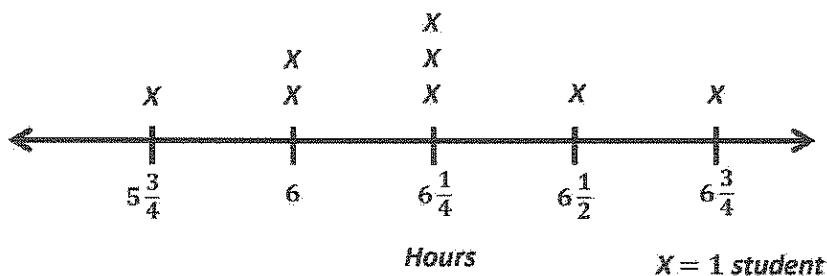


G4-M5-Lesson 28

1. A group of students recorded the amount of time they spent doing homework in a week. The times are shown in the table. Make a line plot to display the data.

I can make a line plot with an interval of fourths because that's the smallest unit in the table. My endpoints are $5\frac{3}{4}$ and $6\frac{3}{4}$ because those are the shortest and longest times spent doing homework. I can draw an X above the correct time on the number line to represent the time each student spent doing homework.

Time Spent Doing Homework in One Week



Student	Time Spent Doing Homework (in hours)	
Rebecca	$6\frac{1}{4}$	✓
Noah	6	✓
Wilson	$5\frac{3}{4}$	✓
Jenna	$6\frac{1}{4}$	✓
Sam	$6\frac{1}{2}$	✓
Angie	6	✓
Matthew	$6\frac{1}{4}$	✓
Jessica	$6\frac{3}{4}$	✓

2. Solve each problem.
- a. Who spent 1 hour longer doing homework than Wilson?

$$5\frac{3}{4} + 1 = 6\frac{3}{4}$$

Jessica spent 1 hour longer doing homework than Wilson.

I can add 1 hour to Wilson's time and look at the table to find the answer.

- b. How many quarter hours did Jenna spend doing homework?

$$6\frac{1}{4} = \frac{24}{4} + \frac{1}{4} = \frac{25}{4}$$

Jenna spent 25 quarter hours doing her homework.

- c. What is the difference, in hours, between the most frequent amount of time spent doing homework and the second most frequent amount of time spent doing homework?

$$6\frac{1}{4} - 6 = \frac{1}{4}$$

The difference is 1 fourth hour.

The X's on the line plot help me see the most frequent time, $6\frac{1}{4}$ hours, and the second most frequent time, 6 hours.

- d. Compare the times of Matthew and Sam using $>$, $<$, or $=$.

$$6\frac{1}{4} < 6\frac{1}{2}$$

Matthew spent less time doing his homework than Sam.

- e. How many students spent less than $6\frac{1}{2}$ hours doing their homework?

Six students spent less than $6\frac{1}{2}$ hours doing their homework.

I can count the X's on the line plot for $5\frac{3}{4}$ hours, 6 hours, and $6\frac{1}{4}$ hours.

- f. How many students recorded the amount of time they spent doing their homework?

Eight students recorded the amount of time they spent doing their homework.

I can count the X's on the line plot, or I can count the students in the table.

- g. Scott spent $\frac{30}{4}$ hours in one week doing his homework. Use $>$, $<$, or $=$ to compare Scott's time to the time of the student who spent the most hours doing homework. Who spent more time doing homework?

$$\frac{30}{4} = \frac{28}{4} + \frac{2}{4} = 7 + \frac{2}{4} = 7\frac{2}{4}$$

$$7\frac{2}{4} > 6\frac{3}{4}$$

I can rename Scott's time as a mixed number, and then I can compare (or I can rename Jessica's time as a fraction greater than 1). There are 7 ones in Scott's time and only 6 ones in Jessica's time.

Scott spent more time than Jessica doing homework.