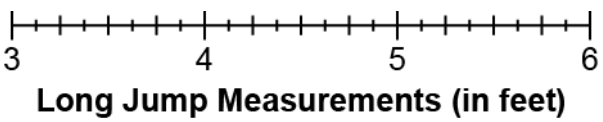
Content Standard	***MAFS.4.MD Measurement and Data*** ***MAFS.4.MD.2*** *Represent and interpret data.* **MAFS.4.MD.2.4** Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection*.
Assessment Limits	Measurement units are limited to halves, quarters, and eighths. Addition and subtraction of fractions is limited to fractions with the same denominators. Multiplication and division is limited to 2-digit by 1-digit, or 2-digit by 2-digit, where one number is a multiple of 10. Addition and subtraction within 1,000.
Calculator	No
Acceptable Response Mechanisms	Equation Response Graphic Response – Hot Spot
Context	Allowed
Example	
Context	For construction, data is in eighths, with wholes, halves, and quarters optional. For problem solving, data is in quarters, with wholes and halves optional.
Context easier	For construction, data is in quarters, with wholes and halves optional. For problem solving, data is in halves, with wholes optional. Decrease the amount of data.
Context more difficult	For problem solving, data is in eighths, with wholes, halves, and quarters optional. Increase the amount of data.

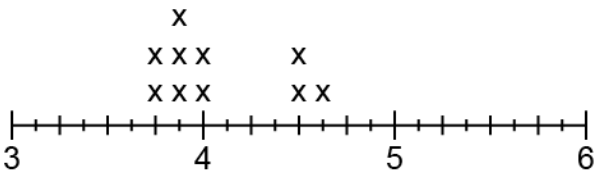
<table>
<tr><th>Sample Item Stem</th><th>Response Mechanism</th><th>Notes, Comments</th></tr>
<tr><td>Long jump measurements are given.

<table>
<tr><td>Long Jump Measurements (in feet)</td></tr>
<tr><td>$4\frac{1}{4}$</td></tr>
<tr><td>$4\frac{1}{2}$</td></tr>
<tr><td>4</td></tr>
<tr><td>$4\frac{1}{4}$</td></tr>
<tr><td>$3\frac{3}{4}$</td></tr>
<tr><td>$3\frac{3}{4}$</td></tr>
</table>

Click above the number line to create a correct line plot of the data.

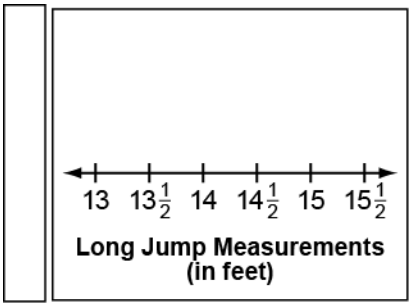
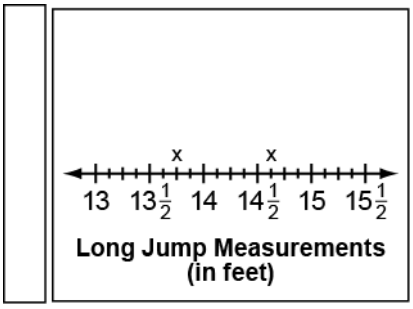


Long Jump Measurements (in feet)</td><td>Graphic Response – Hot Spot</td><td></td></tr>
<tr><td>A line plot with long jump data is given.



Long Jump Measurements (in feet)

Ben jumped $\frac{3}{8}$ foot less than the farthest jump.
How far did Ben jump?</td><td>Equation Response</td><td></td></tr>
</table>

Benny recorded the results for his top four long jump attempts. The total was 57 feet. Click above the number line to create a possible line plot for these data. 	Graphic Response – Hot Spot	
Benny recorded the results for his top four long jump attempts. The total was 57 feet. The first two jumps are shown on the number line. Click above the number line to show the possible lengths of Benny's last two jumps. 	Graphic Response – Hot Spot	