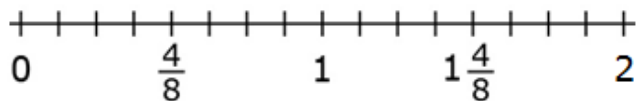


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| <p>Task Model 1</p> <p>Response Type: Hot Spot</p> <p>DOK Level 1</p> <p>4.MD.B.4 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. <i>For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</i></p> <p>Evidence Required: 1. The student creates a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$).</p> <p>Tools: None</p> <p>Accessibility Note: Hot spot items are not currently able to be Brailled. Minimize the number of items developed to this TM.</p> | <p>Prompt Features: The student completes a line plot that displays a given data set of measurements in fractional units.</p> <p>Stimulus Guidelines:</p> <ul style="list-style-type: none"> At least two whole number endpoints must be labeled on the scale of the line plot. Measurement data may reflect classroom contexts or scientific contexts (appropriate to 4th grade), and are limited to these attributes and units: <ul style="list-style-type: none"> distances (km, m, cm; in, ft, yd) intervals of time (hr, min, sec) liquid volumes (L, mL) masses of objects (kg, g; lb, oz) Item difficulty can be adjusted via these example methods: <ul style="list-style-type: none"> How many tick marks are pre-labeled or how many the student is prompted to label The number of data points listed in the data set Whether the data points are listed in order or given in a random sequence The interval spanned by the data points—both its size and the actual endpoints The form of fractions allowed as data points (e.g., proper fractions, improper fractions, mixed numbers, whole numbers) <p>TM1 Stimulus: The student is presented with a data set of measurements in list or table format and a number line.</p> <p>Example Stem: Michelle measures the mass of the books in her desk. The list shows the mass of each book in pounds.</p> $\frac{4}{8}, \frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{9}{8}, \frac{6}{8}, 1\frac{7}{8}, 2$ <p>Click above a tick mark to complete the line plot that displays the data.</p>  |
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Task Model 1

Response Type:
Hot Spot

DOK Level 1**4.MD.B.4**

Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). 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.*

Evidence Required:

1. The student creates a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$).

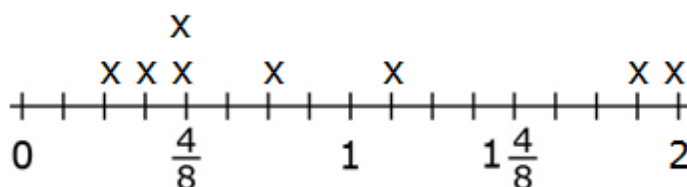
Tools: None

Accessibility Note:

Hot spot items are not currently able to be Brailled. Minimize the number of items developed to this TM.

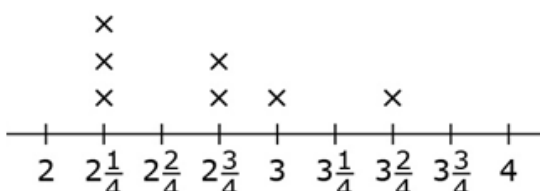
TM1 (continued)

Rubric: (1 point) The student places all of the correct data points to complete the line plot with no incorrect or missing points (e.g., as shown below).



Mass of Books (lb)

Response Type: Hot Spot

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| <p>Task Model 2</p> <p>Response Type: Equation/Numeric</p> <p>DOK Level 2</p> <p>4.MD.B.4 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. <i>For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</i></p> <p>Evidence Required: 2. The student solves problems involving addition and subtraction of fractions with like denominators by using information presented in line plots.</p> <p>Tools: None</p> | <p>Prompt Features: The student solves problems involving addition and subtraction of fractions with like denominators by using information presented in line plots.</p> <p>Stimulus Guidelines:</p> <ul style="list-style-type: none"> Measurement data may reflect classroom contexts or scientific contexts (appropriate to 4th grade), and are limited to these attributes and units: <ul style="list-style-type: none"> Distances (km, m, cm; in, ft, yd) Intervals of time (hr, min, sec) Liquid volumes (L, mL) Masses of objects (kg, g; lb, oz) Item difficulty can be adjusted via these example methods: <ul style="list-style-type: none"> The form that the fractions take (e.g., proper fraction, improper fraction, mixed number, whole number) The number of data points plotted in the line plot What each X represents (e.g., does it stand for one measurement or multiple measurements?) The interval spanned by the data points—both its size and the actual endpoints How many of the tick marks are labeled on the line plot scale (labels must be evenly spaced) Adding/subtracting data points that come before or after one particular point <p>TM2 Stimulus: The student is presented with a line plot that presents measurement data and a one-step question about that data.</p> <p>Example Stem: A student measured how much rain fell each week. This line plot shows the amount of rain, in inches, that fell each week.</p> <div style="text-align: center;">  </div> <p>How much more rain, in inches, was there during the week with the greatest amount of rain than during the week with the least amount of rain? Enter your answer in the response box.</p> <p>Rubric: (1 point) The student enters the correct response to solve addition or subtraction problems involving fractions based on the use of information from the line plot (e.g., $1\frac{1}{4}$).</p> <p>Response Type: Equation/Numeric</p> |
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