

Grade 5 Target H

Domain, Target, Standards, DOK, Vertical Alignments, Achievement Levels, Evidence Required, Vocabulary, Response Types, Materials, Attributes, Question Types, and Question Banks (Examples)

[Content Domain: Measurement and Data](#)

[Target H \[s\]: 5.MD.B Represent and interpret data.](#)

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Content Domain: Measurement and Data

Target H [s]: 5.MD.B Represent and interpret data.

Standards included in Target 5.MD.B, 5.MD.B.2

5.MD.B Represent and interpret data.

5.MD.B.2 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Vertical Alignment

Related Grade 4 standards

4.MD.B Represent and interpret data.

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.

Related Grade 6 Standards

6.SP.B Summarize and describe distributions.

6.SP.B.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

Achievement Level Descriptors

Level 1 Students should be able to make a line plot and represent data sets in whole units.

Level 2 Students should be able to make a line plot and display data sets in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$).

Level 3 Students should be able to interpret a line plot to display data sets in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$) and solve problems using information from line plots that require addition, subtraction, and multiplication of fractions.

Level 4 No Descriptor

Evidence Required

1. The student completes or identifies a line plot with fractional units to display a data set.
2. The student uses operations on fractions to solve problems involving information presented in line plots.

Vocabulary

line plot, table, measurement, data set, interval, unit fraction, mixed number

Response Types

Hot Spot; Multiple Choice, single correct response; Equation/Numeric

Materials

line plots, tables

Attributes

Fractions used in line plots are limited to denominators of 2, 4, 8 and 12.

Claim 1: Concepts and Procedures (DOK 1, 2) Question Banks

Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.

5.MD.B.2 DOK Level 2

Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Evidence Required:

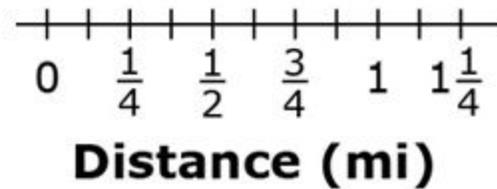
The student completes or identifies a line plot with fractional units to display a data set.

Question Type 1: The student is presented with a data set collected from a real-world context.

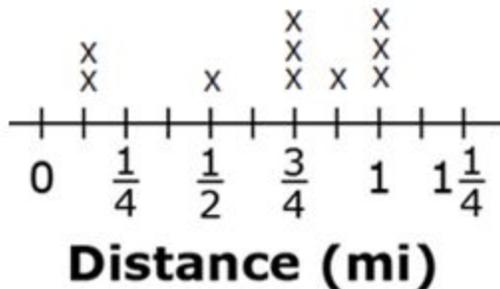
Ten students in a class recorded the distances they ran, in miles, yesterday.

$\frac{7}{8}$, $\frac{8}{4}$, 1, $\frac{8}{4}$, 1, 1, $\frac{1}{8}$, $\frac{1}{2}$, $\frac{8}{4}$, $\frac{1}{8}$

Click above the tick marks to complete the line plot that displays the data.



Rubric: (1 point) The student correctly completes a line plot that displays all 10 data points with no incorrect or missing points (e.g., shown below).



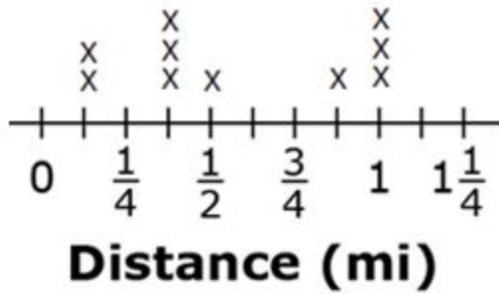
Response Type: Hot Spot

Stimulus: The student is presented with a data set collected from a real-world context.

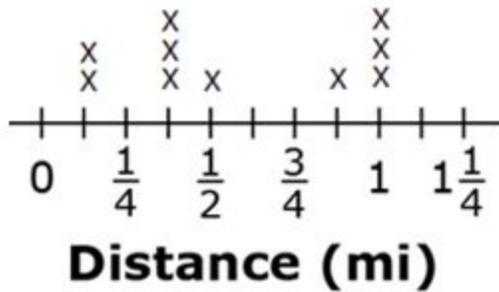
Ten students in a class recorded the distances they ran, in miles, yesterday.

$\frac{7}{8}$, $\frac{8}{4}$, 1, $\frac{8}{4}$, 1, 1, $\frac{1}{8}$, $\frac{1}{2}$, $\frac{8}{4}$, $\frac{1}{8}$

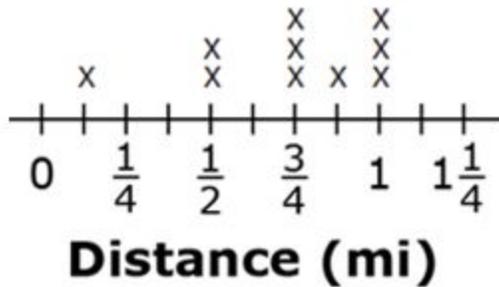
Select the line plot that correctly displays this data.



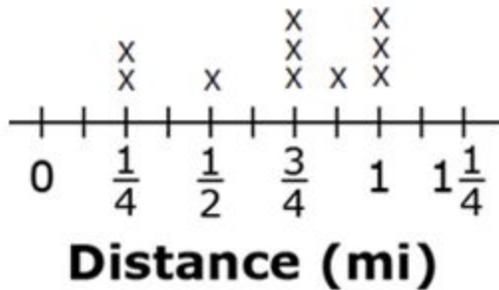
A.



B.



C.



D.

Rubric: (1 point) The student selects the line plot that correctly displays the data (e.g., D).

Response Type: Multiple Choice, single correct response

5.MD.B.2 DOK Level 2

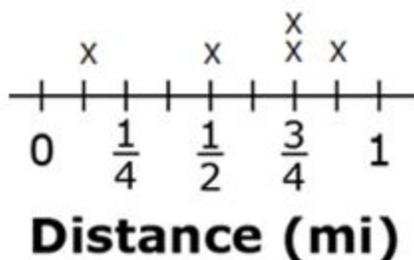
Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Evidence Required:

The student uses operations on fractions to solve problems involving information presented in line plots.

Question Type 1: The student is presented with a line plot with measurements in fractions of a unit (e.g., $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$).

The line plot shows the distance, in miles, that five students ran in a race.



Enter the total distance, in miles, these students ran in the race.

Rubric: (1 point) The student correctly uses the data from a line plot to find a sum (e.g., 3).

Response Type: Equation/Numeric