



GRADE 4 / WATCH MR DJ SOLVE

LINE PLOTS WITH FRACTIONS

Start with the same example used in the lesson slides.

**WATCH MR DJ SOLVE****Lengths in inches: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{2}$, $\frac{3}{4}$, 1. Make a line plot from 0 to 1 in quarter-inch steps; one X per strip.**

- 1 Use equally spaced marks 0, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1.
- 2 Place one X for **each** observation, stacking repeats.
- 3 There must be 5 X marks altogether.

Answer: $\frac{1}{4}$: 1 X; $\frac{1}{2}$: 2 X; $\frac{3}{4}$: 1 X; 1: 1 X**REMEMBER** Equal intervals show fractional measurements; one X represents each observation, including repeats.

Read each step and explain why it is valid. The next pages demonstrate the methods in more detail. Then use the large work areas on the numbered practice pages.



GRADE 4 / WORKED METHODS

LINE PLOTS WITH FRACTIONS

Read a complete example before trying the matching method.



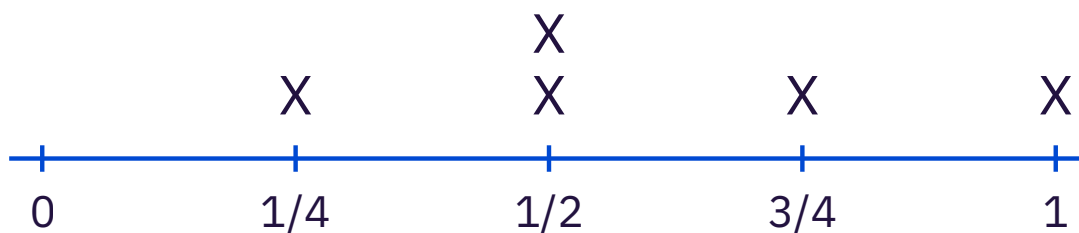
Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

Plot every observation

$1/4$, $1/2$, $1/2$, $3/4$, 1 inches

1. Mark 0, $1/4$, $1/2$, $3/4$, 1 at equal intervals.
2. Stack two Xs at $1/2$ and one at each other observed value.
3. Five observations require five Xs.

Strip lengths in inches / one X = one strip



GRADE 4 / WORKED METHODS

LINE PLOTS WITH FRACTIONS

Read a complete example before trying the matching method.



Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

Total lengths using frequencies

Total length is 3 inches

1. Count repeated $\frac{1}{2}$ twice.
2. In fourths: $1+2+2+3+4=12$.
3. $12/4=3$ inches.



GRADE 4 / PRINTABLE PLOTTING TOOLS

LINE PLOTS WITH FRACTIONS

Keep uncut. Print extra copies for separate questions or a fresh attempt.



Use one X for each observation. The ticks are eighths; add or change unit labels to match the question.

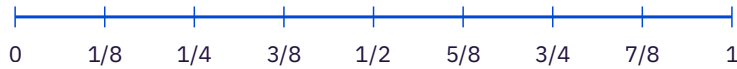
Question: _____ Measurement and units: _____

Measurement scale / one X = one observation



Question: _____ Measurement and units: _____

Measurement scale / one X = one observation



Question: _____ Measurement and units: _____

Measurement scale / one X = one observation





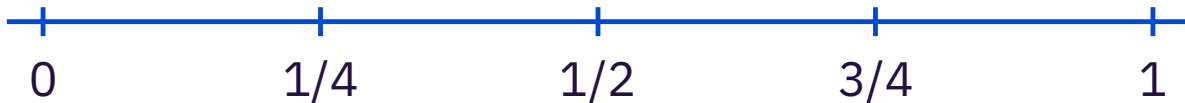
GRADE 4 / BLANK LINE-PLOT SCALES

LINE PLOTS WITH FRACTIONS

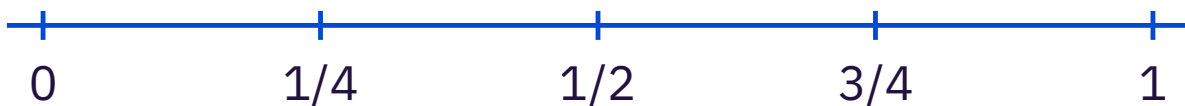
Use a pencil and ruler. Keep the given unit intervals and mirror directions.



Strip lengths in inches / one X = one strip



Strip lengths in inches / one X = one strip



Use the large work areas in the packet for your answers. This reference/tool may be reused as needed.



GRADE 4 / PRACTICE

LINE PLOTS WITH FRACTIONS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

◀ Mild 1. Data in inches: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{2}$, $\frac{3}{4}$, 1. How many strips are at least $\frac{1}{2}$ inch long?

My answer / conclusion: _____

◀ Mild 2. Data in inches: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{2}$, $\frac{3}{4}$, 1. Find the difference between greatest and least length.

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINE PLOTS WITH FRACTIONS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔊 Medium

3. Find the TOTAL length of the strips in inches: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{2}$, $\frac{3}{4}$, 1. Count repeated measurements.

My answer / conclusion: _____

🔊 Medium

4. Data: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 inches. How many MORE strips measure $\frac{1}{2}$ than $\frac{1}{4}$ inch?

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINE PLOTS WITH FRACTIONS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔊 Medium

5. A line plot has three X marks at $\frac{1}{4}$ m and two X marks at $\frac{3}{4}$ m. Find the total length.

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINE PLOTS WITH FRACTIONS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔥🔥🔥 Spicy

6. Digit plots only one X above each different measurement, even when values repeat. Explain what information disappears.

Grid area for drawing the line plot.

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINE PLOTS WITH FRACTIONS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🌶️🌶️🌶️ Spicy

7. A line plot has two Xs at $\frac{1}{4}$ and two at $\frac{3}{4}$. Another has four at $\frac{1}{2}$. Compare count, total and spread.

Grid area for drawing the line plot.

My answer / conclusion: _____

GRADE 4 / PRACTICE

LINE PLOTS WITH FRACTIONS

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Extra Spicy

8. Design a quarter-inch line plot with four measurements totaling 2 inches and at least three distinct values. Explain.

My answer / conclusion: _____