

Grade 4 - Line Plots with Fractions - Quiz

Common Core 4.MD.B.4 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

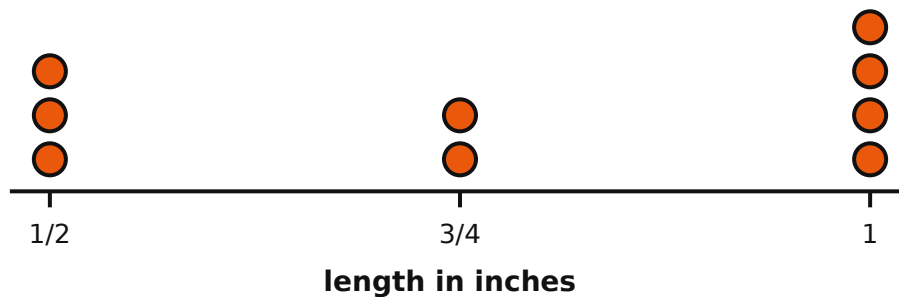
Take this 10-question quiz on line plots with fractions. Read each plot carefully before you answer. Some questions use halves, fourths, or eighths. The explanations show how to avoid common mistakes with the dots and the fractions.

Grade 4 · Common Core State Standards: **4.MD.B.4**

Questions

Question 1

Look at the line plot. How many measurements are shown?

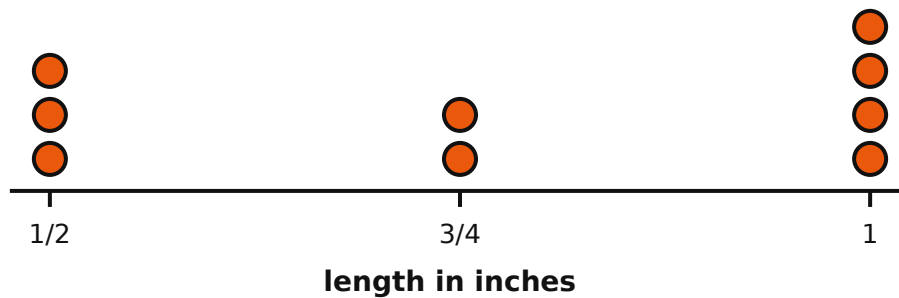


Nail lengths. Each dot is one nail.

- A. 3
- B. 6
- C. 4
- D. 9

Question 2

Look at the line plot. Which length is the most common?

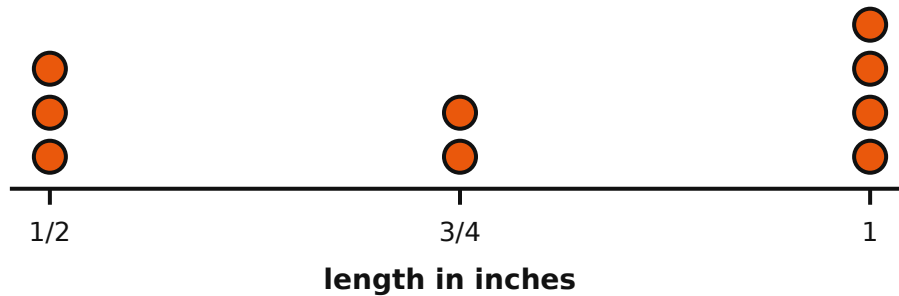


Nail lengths. Each dot is one nail.

- A. $\frac{1}{2}$ in
- B. $\frac{3}{4}$ in
- C. 4 in
- D. 1 in

Question 3

Look at the line plot. How much longer is the longest nail than the shortest?



Nail lengths. Each dot is one nail.

- A. $\frac{1}{2}$ in
- B. $\frac{1}{4}$ in
- C. $1\frac{1}{2}$ in
- D. $\frac{3}{4}$ in

Question 4

A line plot has 3 dots at $\frac{1}{4}$ inch. What is the total length of those 3 pieces?

- A. $\frac{3}{12}$ in
- B. $\frac{3}{4}$ in
- C. $\frac{1}{4}$ in
- D. 3 in

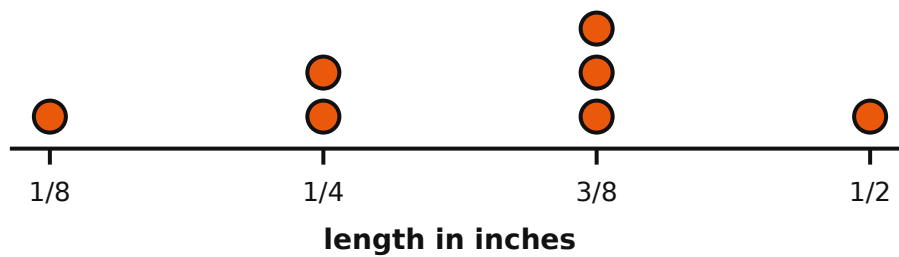
Question 5

A line plot has 2 dots at $\frac{1}{2}$ foot and 2 dots at 1 foot. What is the total length?

- A. 1 ft
- B. 3 ft
- C. 2 ft
- D. 4 ft

Question 6

Look at the line plot. How many seeds are shorter than $\frac{3}{8}$ inch?



Seed lengths. Each dot is one seed.

- A. 6
- B. 4
- C. 3
- D. 7

Question 7

Look at the line plot. How much longer is the longest seed than the shortest?



Seed lengths. Each dot is one seed.

- A. $\frac{1}{8}$ in

- B. $\frac{7}{8}$ in
- C. $\frac{1}{8}$ in
- D. $\frac{1}{4}$ in

Question 8

Four dots are at $1\frac{1}{2}$ feet. What is the total length?

- A. 6 ft
- B. $5\frac{1}{2}$ ft
- C. $4\frac{1}{2}$ ft
- D. $1\frac{1}{2}$ ft

Question 9

A line plot is labeled in fourths of an inch. Which mark comes right after $\frac{1}{2}$ inch?

- A. $\frac{3}{4}$ in
- B. $\frac{1}{4}$ in
- C. $\frac{5}{8}$ in
- D. 1 in

Question 10

The data are $\frac{1}{4}, \frac{1}{2}, \frac{1}{4}, \frac{3}{4}, \frac{1}{4}$ inch. How many dots go above $\frac{1}{4}$?

- A. 1
- B. 3
- C. 2
- D. 5

Answers

1. **D** - Count every dot: $3 + 2 + 4 = 9$. The 3 counts only the number marks on the line.
2. **D** - The tallest stack has 4 dots at 1 inch. The number 4 is how many dots, not a length.
3. **A** - The longest is 1 inch and the shortest is $\frac{1}{2}$ inch. Subtract: $1 - \frac{1}{2} = \frac{1}{2}$ inch.
4. **B** - Add $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$. Adding the denominators too ($\frac{3}{12}$) is a common mistake.
5. **B** - Two halves make 1 foot, and two 1-foot pieces make 2 feet. $1 + 2 = 3$ feet.
6. **C** - Shorter than $\frac{3}{8}$ inch means $\frac{1}{8}$ inch (1 dot) and $\frac{1}{4}$ inch (2 dots): $1 + 2 = 3$. The 7 is all the seeds.
7. **C** - Longest $\frac{1}{2} = \frac{4}{8}$, shortest $\frac{1}{8}$. Subtract: $\frac{4}{8} - \frac{1}{8} = \frac{3}{8}$ inch.
8. **A** - Add $1 \frac{1}{2}$ four times: 3, then $4 \frac{1}{2}$, then 6 feet. Adding only $1 + \frac{1}{2}$ once is not enough.
9. **A** - Fourths go $\frac{1}{4}$, $\frac{2}{4}$ (which is $\frac{1}{2}$), $\frac{3}{4}$, $\frac{4}{4}$. The next mark after $\frac{1}{2}$ is $\frac{3}{4}$.
10. **B** - $\frac{1}{4}$ appears three times in the list, so there are 3 dots above $\frac{1}{4}$. The total number of dots is 5.

Remember

- A line plot shows data above a number line, one dot per measurement.
- The tick marks are equally spaced, for example every $\frac{1}{4}$ or every $\frac{1}{8}$.
- A taller stack of dots means that length happened more often.
- To find a total, add the length once for every dot.
- To find a difference, subtract the shortest length from the longest.