

Line Plots with Fractions

Grade 5 • MATH • Creating line plots with fractional measurements and solving fraction problems •
Standards: 5.MD.B.2

Use the data in each problem to create a line plot with fractional measurements, then answer the questions about your plot.

1. Maya measured the heights of seedlings in inches: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$. How many seedlings measured $\frac{1}{4}$ inch?
2. A baker recorded the weights of apple slices in pounds: $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{8}$, $\frac{3}{8}$, $\frac{1}{4}$. What is the most common weight?
3. Students measured pencil lengths in feet: $\frac{1}{6}$, $\frac{2}{6}$, $\frac{1}{6}$, $\frac{3}{6}$, $\frac{2}{6}$, $\frac{1}{6}$, $\frac{2}{6}$. How many more pencils measured $\frac{2}{6}$ foot than $\frac{3}{6}$ foot?
4. A scientist recorded rainfalls in inches: $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{4}$. What is the difference between the greatest and least rainfall amounts?
5. A gardener measured plant stem widths in inches: $\frac{2}{8}$, $\frac{3}{8}$, $\frac{2}{8}$, $\frac{4}{8}$, $\frac{3}{8}$, $\frac{2}{8}$, $\frac{3}{8}$, $\frac{4}{8}$. What is the total width if you add the two thickest stems?
6. A coach measured jump distances in feet: $\frac{5}{12}$, $\frac{7}{12}$, $\frac{5}{12}$, $\frac{8}{12}$, $\frac{7}{12}$, $\frac{5}{12}$, $\frac{6}{12}$. What is the combined distance of all jumps that measured $\frac{5}{12}$ foot?
7. A jeweler measured bead diameters in inches: $\frac{3}{10}$, $\frac{5}{10}$, $\frac{4}{10}$, $\frac{3}{10}$, $\frac{5}{10}$, $\frac{4}{10}$, $\frac{3}{10}$, $\frac{5}{10}$. What is the total length of all beads measuring $\frac{4}{10}$ inch and $\frac{5}{10}$ inch combined?
8. A teacher measured ribbon lengths in yards: $\frac{2}{5}$, $\frac{3}{5}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$, $\frac{3}{5}$, $\frac{2}{5}$, $\frac{1}{5}$. How much longer is the longest ribbon than the shortest ribbon?
9. A farmer weighed vegetables in pounds: $\frac{5}{6}$, $\frac{4}{6}$, $\frac{5}{6}$, $\frac{3}{6}$, $\frac{4}{6}$, $\frac{5}{6}$, $\frac{4}{6}$, $\frac{3}{6}$, $\frac{5}{6}$. What is the total weight of the three lightest vegetables?

10. A scientist measured liquid samples in liters: $\frac{7}{16}$, $\frac{9}{16}$, $\frac{8}{16}$, $\frac{7}{16}$, $\frac{10}{16}$, $\frac{9}{16}$, $\frac{8}{16}$, $\frac{7}{16}$, $\frac{9}{16}$. What is the difference between the total of all $\frac{9}{16}$ liter samples and the total of all $\frac{7}{16}$ liter samples?

Answer Key — Line Plots with Fractions

For the teacher / parent. Do not distribute with the worksheet.

1. 3 (Count the number of times $\frac{1}{4}$ appears in the data set)
2. $\frac{1}{8}$ pound ($\frac{1}{8}$ appears 3 times, which is more than any other measurement)
3. 2 ($\frac{2}{6}$ appears 3 times and $\frac{3}{6}$ appears 1 time, so $3 - 1 = 2$)
4. $\frac{1}{2}$ inch (Greatest is $\frac{3}{4}$ and least is $\frac{1}{4}$, so $\frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$)
5. 1 inch (The thickest stems are both $\frac{4}{8}$ inch, so $\frac{4}{8} + \frac{4}{8} = \frac{8}{8} = 1$)
6. $\frac{15}{12}$ or $1\frac{3}{12}$ or $1\frac{1}{4}$ feet ($\frac{5}{12}$ appears 3 times, so $\frac{5}{12} + \frac{5}{12} + \frac{5}{12} = \frac{15}{12}$)
7. $\frac{23}{10}$ or $2\frac{3}{10}$ inches ($\frac{4}{10}$ appears 2 times ($\frac{8}{10}$ total) and $\frac{5}{10}$ appears 3 times ($\frac{15}{10}$ total), so $\frac{8}{10} + \frac{15}{10} = \frac{23}{10}$)
8. $\frac{3}{5}$ yard (Longest is $\frac{4}{5}$ and shortest is $\frac{1}{5}$, so $\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$)
9. $\frac{10}{6}$ or $1\frac{4}{6}$ or $1\frac{2}{3}$ pounds (The lightest weight is $\frac{3}{6}$, which appears 2 times. The next lightest is $\frac{4}{6}$. So $\frac{3}{6} + \frac{3}{6} + \frac{4}{6} = \frac{10}{6}$)
10. $\frac{6}{16}$ or $\frac{3}{8}$ liter ($\frac{9}{16}$ appears 3 times ($\frac{27}{16}$ total) and $\frac{7}{16}$ appears 3 times ($\frac{21}{16}$ total), so $\frac{27}{16} - \frac{21}{16} = \frac{6}{16}$)