ALBERT

Name _____ Date _____

Line Plots with Fractions Worksheet

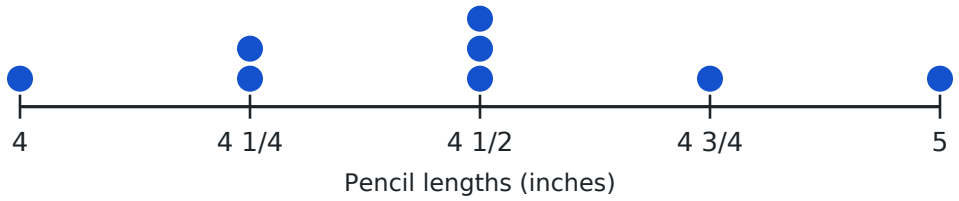
Grade 4 · Common Core 4.MD.B.4

> Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 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.

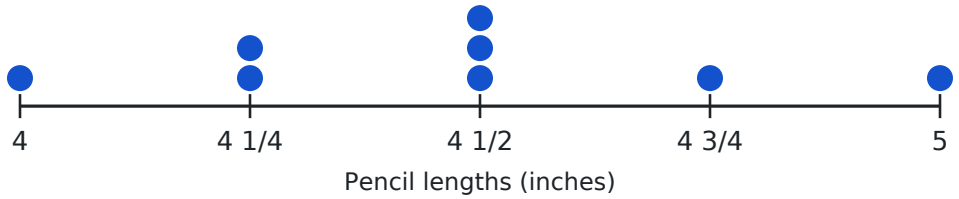
Practice

Builds the skill step by step.

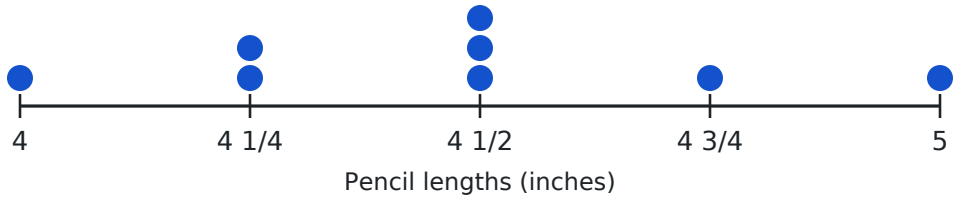
1. The line plot shows the lengths of some pencils. How many pencils were measured?



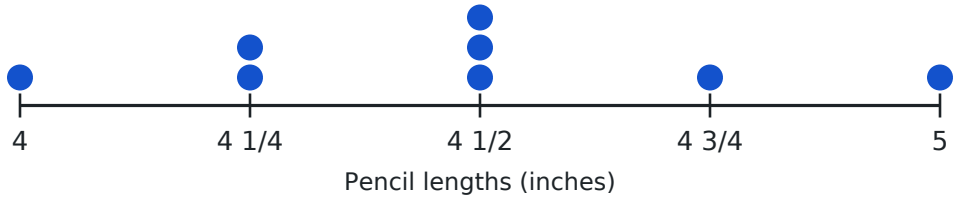
2. Which pencil length is the most common?



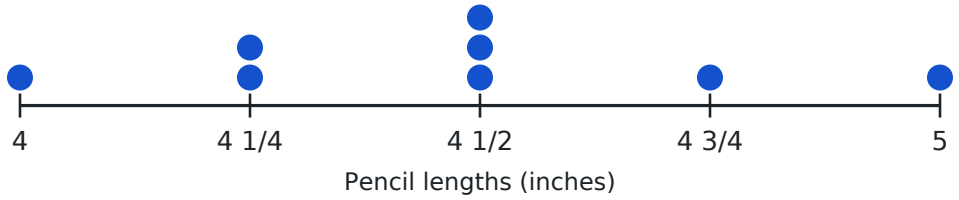
3. How many pencils are $4\frac{1}{4}$ inches long?



4. How much longer is the longest pencil than the shortest pencil?



5. How many pencils are longer than $4\frac{1}{2}$ inches?



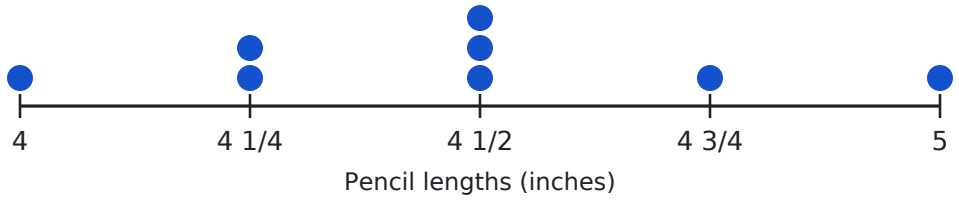
A. 5

B. 3

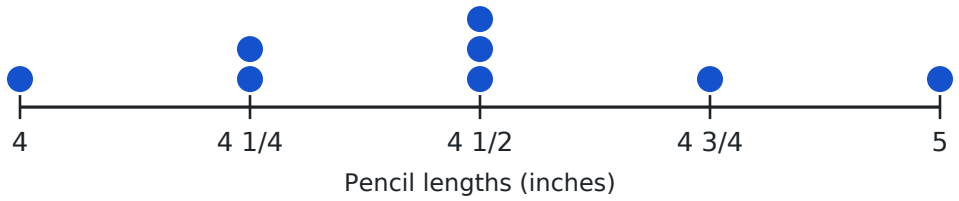
C. 2

D. 1

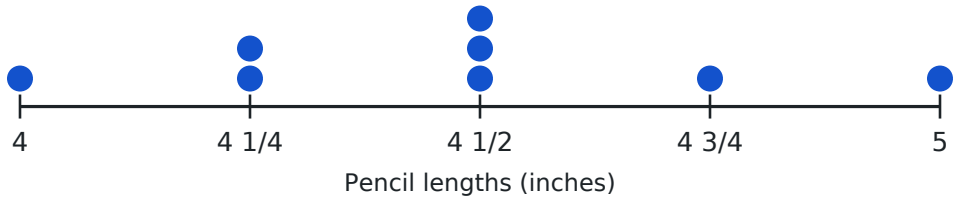
6. What is the total length of all the pencils that are $4\frac{1}{2}$ inches long?



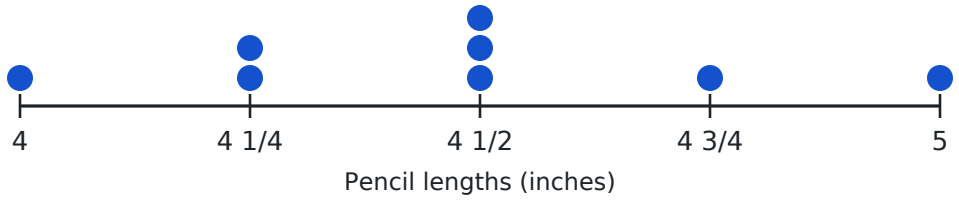
7. How many pencils are shorter than $4\frac{1}{2}$ inches?



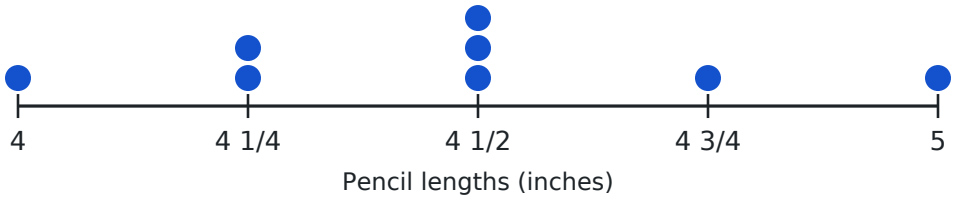
8. Add the length of the shortest pencil and the length of the longest pencil. What is the sum?



9. How many different lengths have exactly one pencil?



10. How much longer is a $4\frac{3}{4}$-inch pencil than a $4\frac{1}{4}$-inch pencil?



Pencil lengths (inches)

ALBERT

Name _____ Date _____

Line Plots with Fractions Worksheet

Grade 4 · Common Core 4.MD.B.4

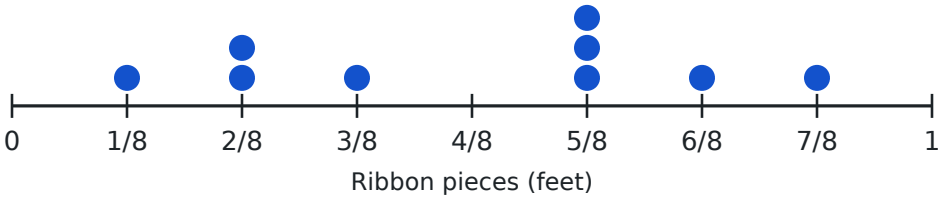
On Level

Grade-level practice.

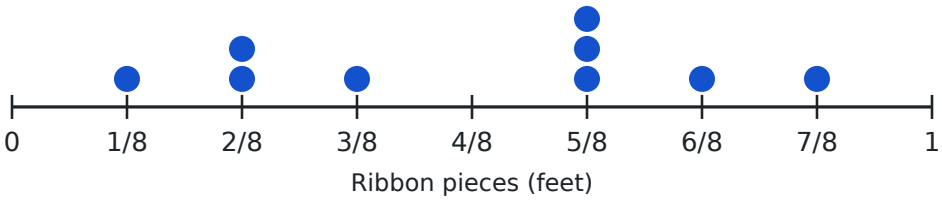
1. The line plot shows the lengths of ribbon pieces. How many pieces are there?



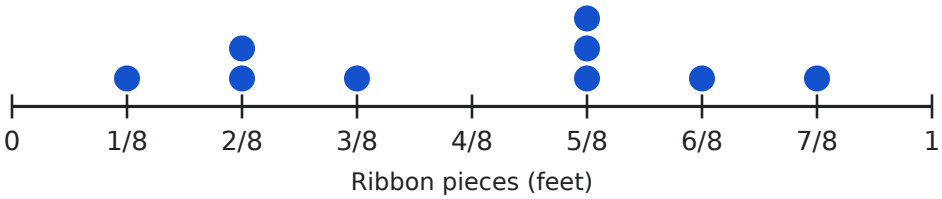
2. How much longer is the longest piece than the shortest piece?



3. What is the total length of all the $\frac{5}{8}$-foot pieces?



4. Which length is the most common?



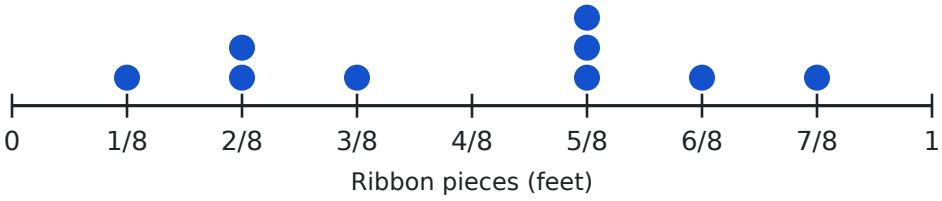
A. $\frac{7}{8}$ foot

B. $\frac{6}{8}$ foot

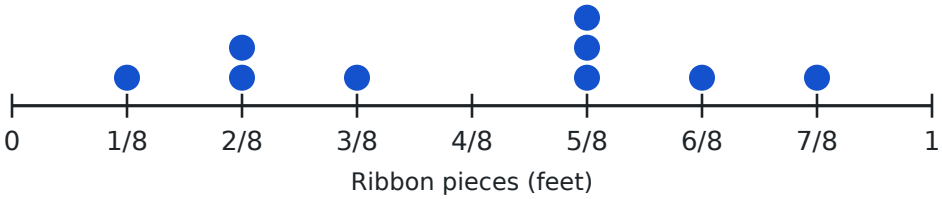
C. $\frac{5}{8}$ foot

D. $\frac{2}{8}$ foot

5. How many pieces are longer than $\frac{1}{2}$ foot?



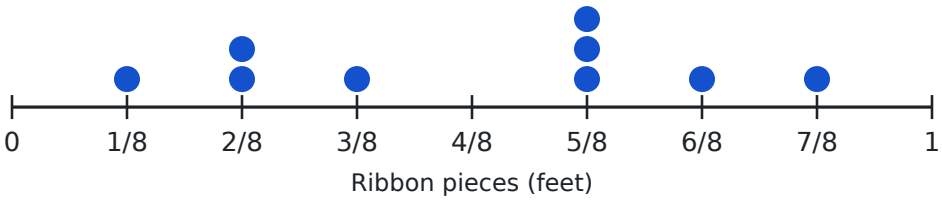
6. What is the total length of the two $\frac{2}{8}$-foot pieces?



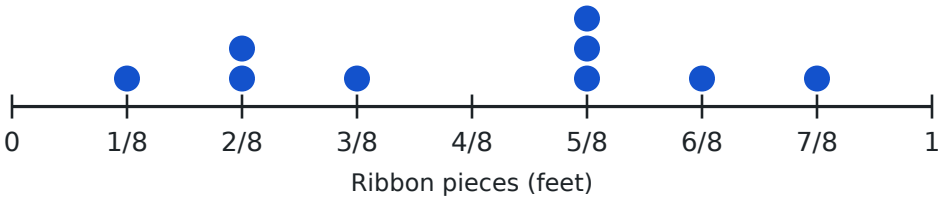
7. All the pieces that are $\frac{3}{8}$ foot or shorter are taped end to end. How long is the taped ribbon?



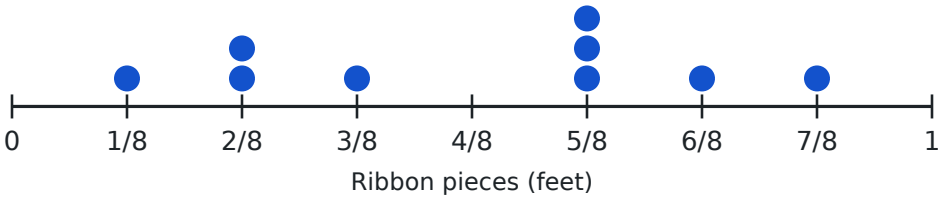
8. How much longer is the $\frac{7}{8}$-foot piece than the $\frac{3}{8}$-foot piece?



9. What is the total length of all the ribbon pieces?



10. Which statement about the ribbon pieces is true?



A. No pieces are longer than $\frac{3}{4}$ foot.

B. There are more $\frac{5}{8}$-foot pieces than any other length.

C. Most pieces are shorter than $\frac{3}{8}$ foot.

D. There are two $\frac{7}{8}$-foot pieces.

ALBERT

Name _____ Date _____

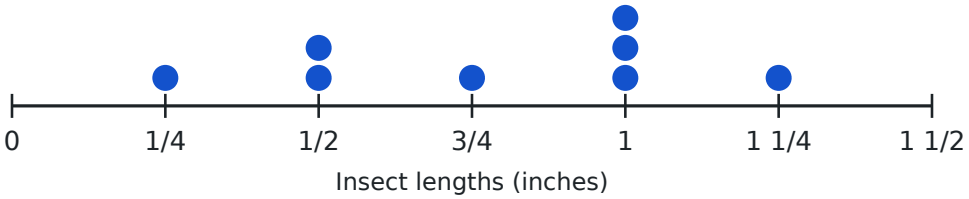
Line Plots with Fractions Worksheet

Grade 4 · Common Core 4.MD.B.4

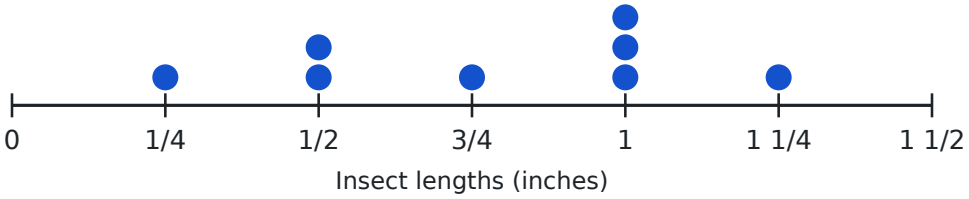
Challenge

Multi-step and word problems that stretch it.

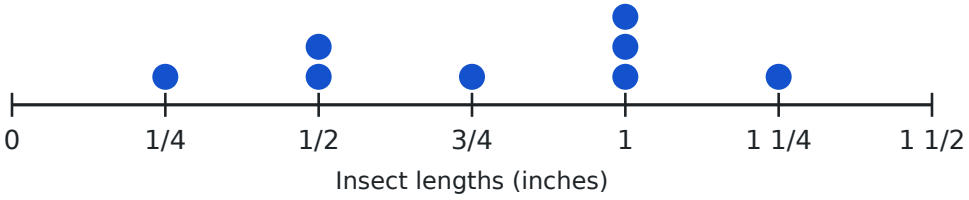
1. The line plot shows the lengths of insects in a collection. How much longer is the longest insect than the shortest?



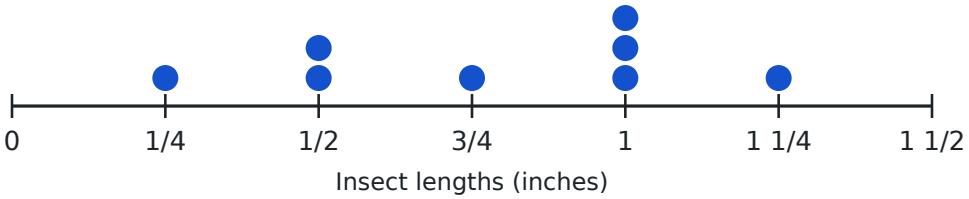
2. If all the insects were lined up end to end, how long would the line be?



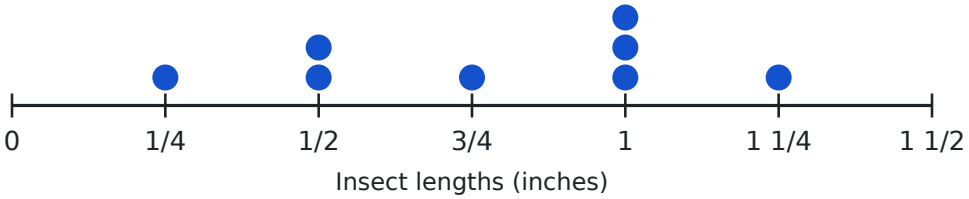
3. What is the most common insect length?



4. How many insects are longer than $\frac{1}{2}$ inch?



5. Why is this line plot marked in fourths of an inch?



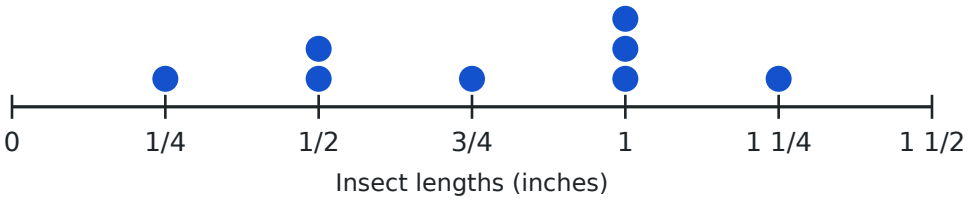
A. Every length in the data is a whole number of fourths.

B. Fourths are the biggest unit.

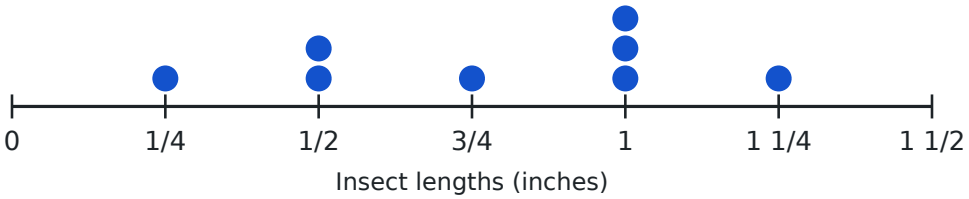
C. There are 4 insects.

D. Line plots must use fourths.

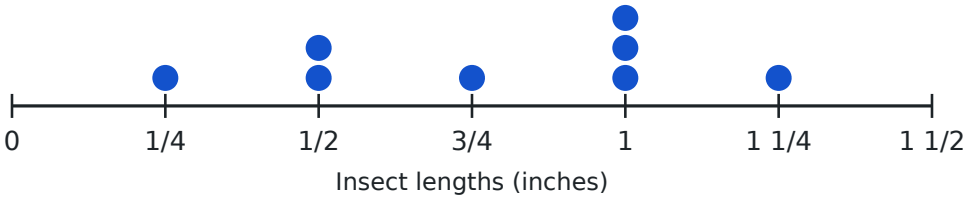
6. What is the total length of all the insects that are 1 inch long?



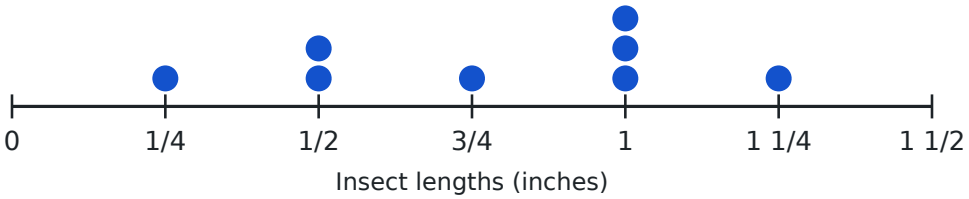
7. What is the total length of the two shortest insects?



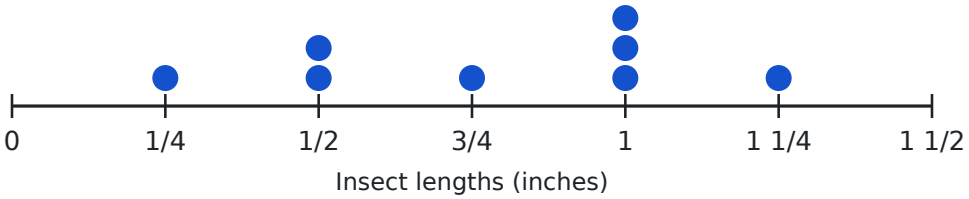
8. How much longer is the most common length than the shortest length?



9. A new insect that is $1\frac{1}{2}$ inches long is added. Now how much longer is the longest insect than the shortest?



10. How many dots are stacked directly above the $\frac{1}{2}$ mark?



A. 4

B. 3

C. 2

D. 1