

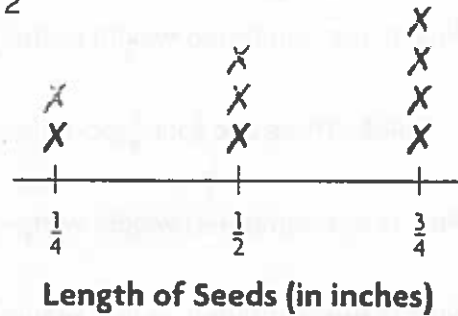
Line Plots

A **line plot** is a graph that shows the shape of a data set by placing Xs above each data value on a number line. You can make a line plot to represent a data set and then use the line plot to answer questions about the data set.

Students measure the lengths of several seeds.
The length of each seed is listed below.

$\frac{1}{2}$ inch, $\frac{3}{4}$ inch, $\frac{1}{2}$ inch, $\frac{1}{4}$ inch, $\frac{3}{4}$ inch, $\frac{3}{4}$ inch, $\frac{3}{4}$ inch, $\frac{1}{4}$ inch, $\frac{1}{2}$ inch

What is the combined length of the seeds that are $\frac{1}{4}$ inch long?



Step 1 To represent the different lengths of the seeds, draw and label a line plot with the data values $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$. Then use an X to represent each seed. The line plot has been started for you.

Step 2 There are _____ Xs above $\frac{1}{4}$ on the line plot.

Multiply to find the combined length of the seeds:

$$1 \times \frac{1}{4} = \frac{1}{4} \text{ inch}$$

The combined length of the seeds that are $\frac{1}{4}$ inch long is $\frac{1}{4}$ inch.

You can use the same process to find the combined lengths of the seeds that are $\frac{1}{2}$ inch long and $\frac{3}{4}$ inch long.

Use the data and the line plot above to answer the questions.

1. What is the total length of all the seeds that the students measured?
2. What is the average length of one of the seeds that the students measured?

Line Plots

Use the data to complete the line plot. Then answer the questions.

A clerk in a health food store makes bags of trail mix. The amount of trail mix in each bag is listed below.

- $\frac{1}{4}$ lb, $\frac{1}{4}$ lb, $\frac{3}{4}$ lb, $\frac{1}{2}$ lb, $\frac{1}{4}$ lb, $\frac{3}{4}$ lb,
 $\frac{3}{4}$ lb, $\frac{3}{4}$ lb, $\frac{1}{2}$ lb, $\frac{1}{4}$ lb, $\frac{1}{2}$ lb, $\frac{1}{2}$ lb

1. What is the combined weight of the $\frac{1}{4}$ -lb bags? 1 lb

Think: There are four $\frac{1}{4}$ -pound bags.

2. What is the combined weight of the $\frac{1}{2}$ -lb bags? _____



3. What is the combined weight of the $\frac{3}{4}$ -lb bags? _____

Weight of Trail Mix (in pounds)

4. What is the total weight of the trail mix used in all the bags? _____

5. What is the average amount of trail mix in each bag? _____

Julie uses crystals to make a bracelet. The lengths of the crystals are shown below.

- $\frac{1}{2}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., $\frac{1}{2}$ in., $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{3}{4}$ in.,
 $\frac{3}{8}$ in., $\frac{3}{4}$ in., $\frac{5}{8}$ in., $\frac{1}{2}$ in., $\frac{3}{8}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in.



Lengths of Crystals (in inches)

6. What is the combined length of the $\frac{1}{2}$ -in. crystals? _____

7. What is the combined length of the $\frac{3}{8}$ -in. crystals? _____

8. What is the total length of all the crystals in the bracelet? _____

9. What is the average length of each crystal in the bracelet? _____