

Name _____

Line Plots

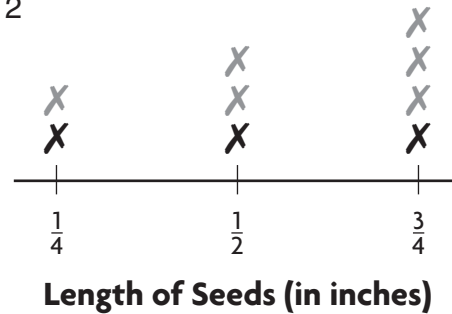
A **line plot** is a graph that shows the shape of a data set by placing Xs above each data value on a number line. You can make a line plot to represent a data set and then use the line plot to answer questions about the data set.

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 2 Xs above $\frac{1}{4}$ on the line plot.

Multiply to find the combined length of the seeds:

$$\underline{2} \times \underline{\frac{1}{4}} = \underline{\frac{2}{4}}, \text{ or } \underline{\frac{1}{2}} \text{ inch}$$

The combined length of the seeds that are $\frac{1}{4}$ inch long is $\frac{1}{2}$ 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?

Name _____

Ordered Pairs

A coordinate grid is like a sheet of graph paper bordered at the left and at the bottom by two perpendicular number lines. The **x-axis** is the horizontal number line at the bottom of the grid. The **y-axis** is the vertical number line on the left side of the grid.

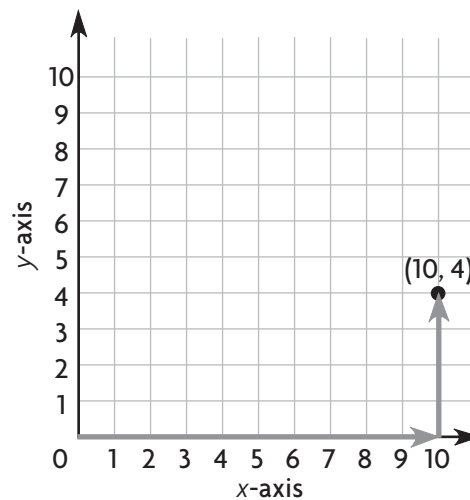
An ordered pair is a pair of numbers that describes the location of a point on the grid. An ordered pair contains two coordinates, x and y . The **x-coordinate** is the first number in the ordered pair, and the **y-coordinate** is the second number.

$(x, y) \longrightarrow (10, 4)$

Plot and label $(10, 4)$ on the coordinate grid.

To graph an ordered pair:

- Start at the origin, $(0, 0)$.
- Think: The letter x comes before y in the alphabet. Move across the x -axis first.
- The x -coordinate is 10, so move 10 units right.
- The y -coordinate is 4, so move 4 units up.
- Plot and label the ordered pair $(10, 4)$.



Use the coordinate grid to write an ordered pair for the given point.

1. G _____ 2. H _____

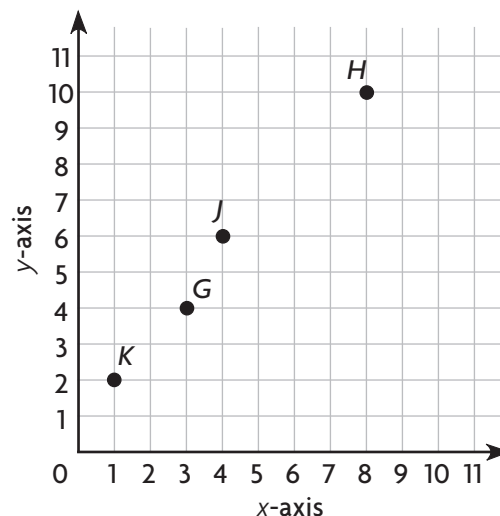
3. J _____ 4. K _____

Plot and label the points on the coordinate grid.

5. $A(1, 6)$ 6. $B(1, 9)$

7. $C(3, 7)$ 8. $D(5, 5)$

9. $E(9, 3)$ 10. $F(6, 2)$



Name _____

Graph Data

Graph the data on the coordinate grid.

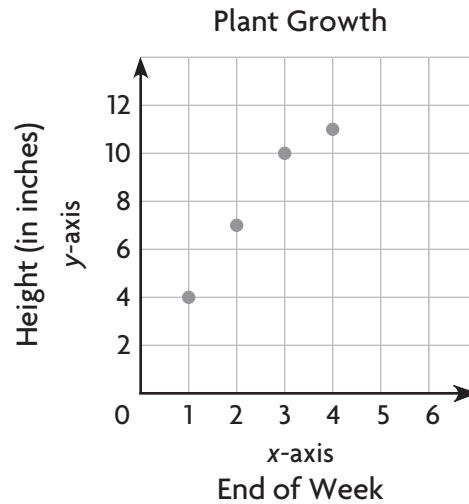
Plant Growth				
End of Week	1	2	3	4
Height (in inches)	4	7	10	11

- Choose a title for your graph and label it. You can use the data categories to name the x- and y-axis.
- Write the related pairs of data as ordered pairs.

(1 , 4), (2 , 7)

(3 , 10), (4 , 11)

- Plot the point for each ordered pair.



Graph the data on the coordinate grid. Label the points.

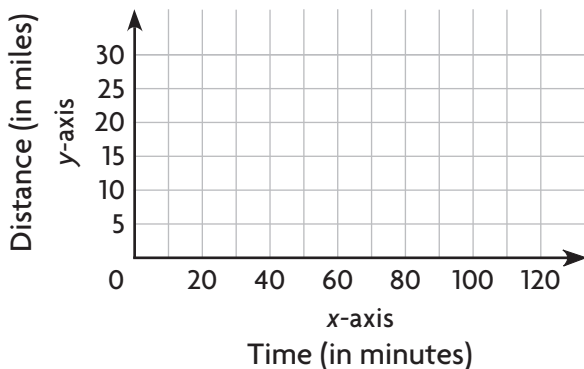
1.

Distance of Bike Ride				
Time (in minutes)	30	60	90	120
Distance (in miles)	9	16	21	27

Write the ordered pair for each point.

(_____ , _____), (_____ , _____)
(_____ , _____), (_____ , _____)

Distance of Bike Ride



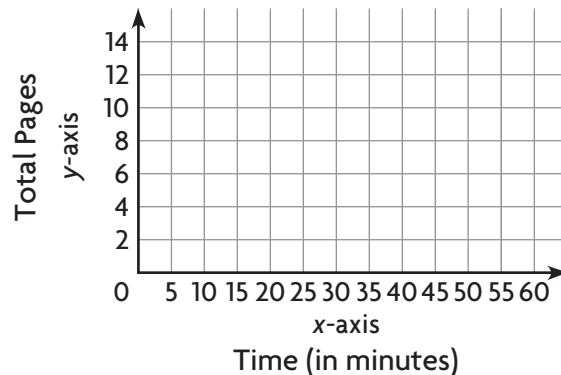
2.

Bianca's Writing Progress				
Time (in minutes)	15	30	45	60
Total Pages	1	3	9	11

Write the ordered pair for each point.

(_____ , _____), (_____ , _____)
(_____ , _____), (_____ , _____)

Bianca's Writing Progress



Name _____

Line Graphs

A **line graph** uses a series of line segments to show how a set of data changes over time. The **scale** of a line graph measures and labels the data along the axes. An **interval** is the distance between the numbers on an axis.

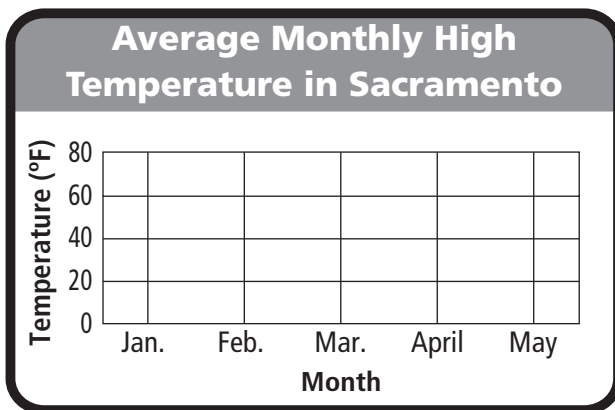
Use the table to make a line graph.

- Write a title for your graph. In this example, use **Average Monthly High Temperature in Sacramento**.
- Draw and label the axes of the line graph. Label the horizontal axis **Month**. Write the months. Label the vertical axis **Temperature (°F)**.
- Choose a scale and an interval. The range is 53–80, so a possible scale is 0–80, with intervals of 20.
- Write the related pairs of data as ordered pairs: **(Jan, 53); (Feb, 60); (Mar, 65); (April, 71); (May, 80)**.

Average Monthly High Temperature in Sacramento, California

Month	Jan.	Feb.	Mar.	April	May
Temperature (°F)	53	60	65	71	80

1. Make a line graph of the data above.

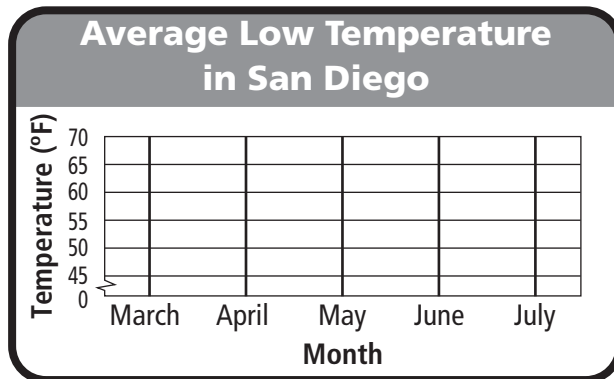


Use the graph to determine between which two months the least change in average high temperature occurs.

2. Make a line graph of the data in the table.

Average Low Temperature in San Diego, California

Month	Mar.	April	May	June	July
Temperature (°F)	51	51	60	62	66



Use the graph to determine between which two months the greatest change in average low temperature occurs.
