

Lesson 14

Line Graphs

GAIN

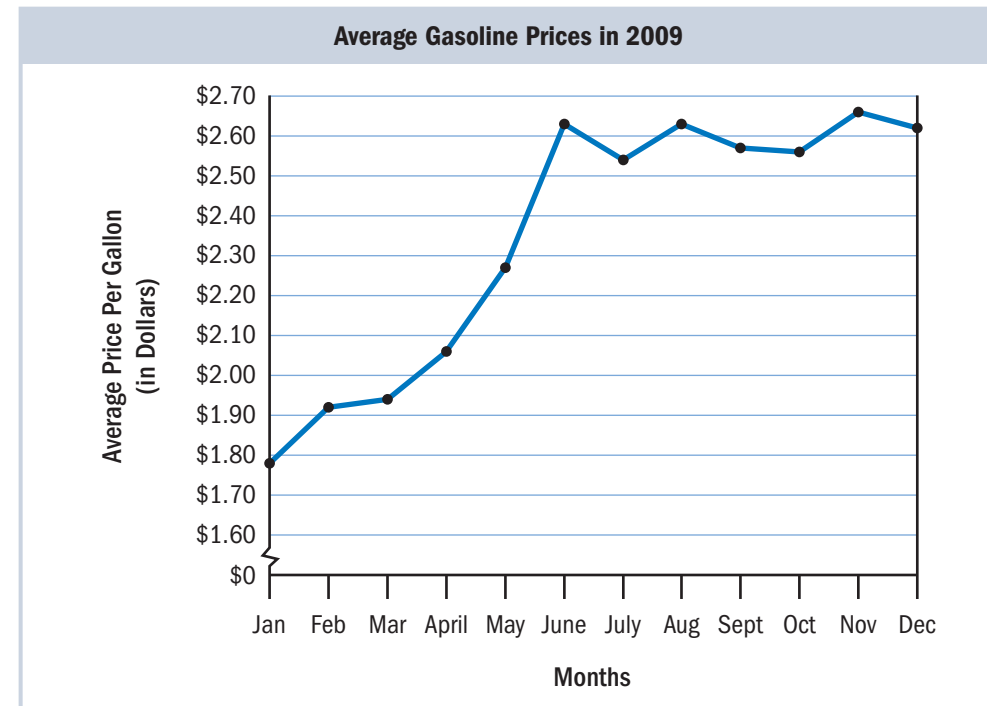
Learning Objective

In this lesson, you will learn to retrieve information from line graphs.

Line graphs are used to show trends and developments over a period of time. Just like bar graphs, line graphs use axis lines to show information. Both axes of a line graph can use scales to show information. Line graphs are made up of points connected by line segments.

The line graph below shows the same information as the table to its left, but it is easier to see the rise and fall of the data on the line graph. The points on the line graph show how the price of gasoline changed from month to month. In the line graph, the months are displayed along the horizontal axis. The average price per gallon is shown by the vertical axis on the left.

Month	Price Per Gallon
Jan	\$1.78
Feb	\$1.92
Mar	\$1.94
April	\$2.06
May	\$2.27
June	\$2.63
July	\$2.54
Aug	\$2.63
Sept	\$2.57
Oct	\$2.56
Nov	\$2.66
Dec	\$2.62



*Source: U.S. Bureau of Labor Statistics, 2009

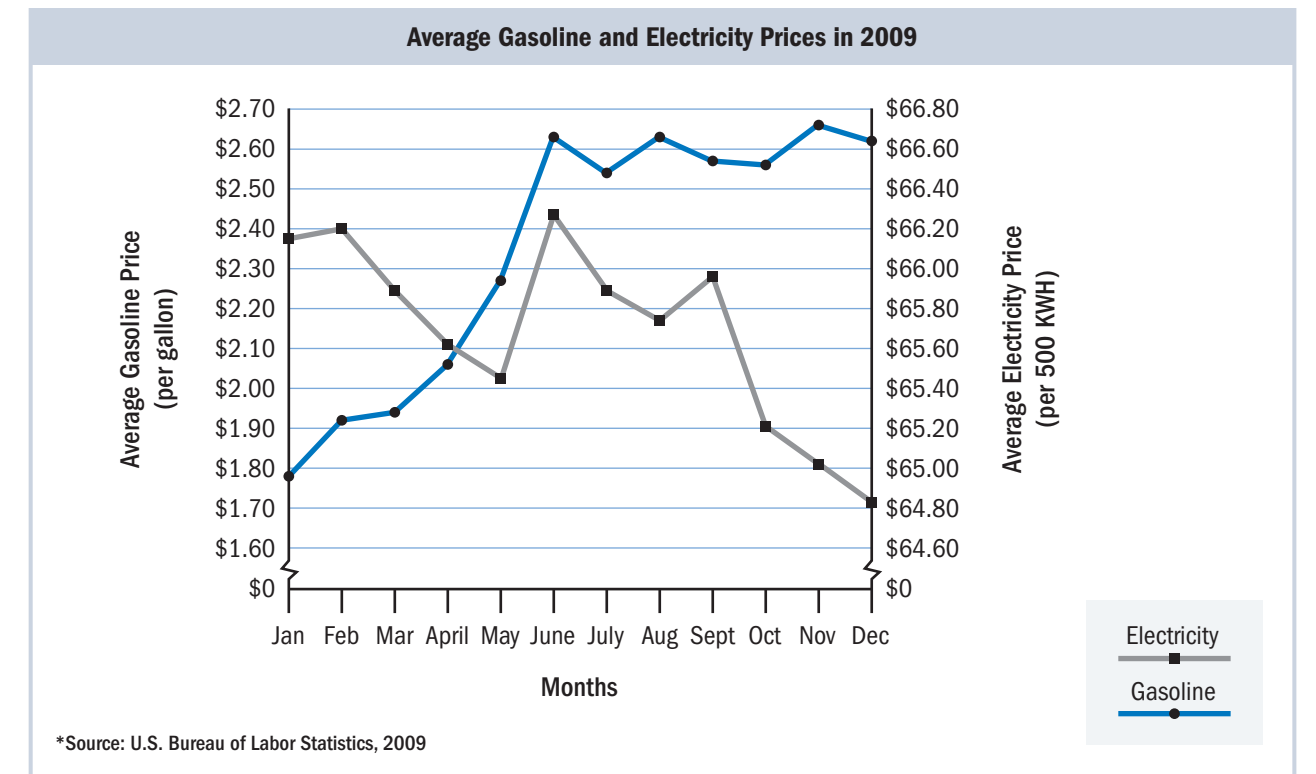
To read a line graph, find its title first, and then read the labels along each axis that correspond to each point.

Understand It

- For what year does the graph display data? _____
- The price per gallon is shown in dollars. **True** **False**

Teacher Reminder
Review the teacher lesson at www.mysteckvaughn.com/GAIN

A double line graph shows two sets of data. The double line graph below shows gasoline prices on one line and electricity prices on the other line. The left axis shows the average price of gasoline per gallon. The right axis shows the average price of electricity per 500 kilowatt hours. Each scale uses dollar amounts to show price.



*Source: U.S. Bureau of Labor Statistics, 2009

To read the graph, decide which line and scale to use. Find *May* on the horizontal axis. From there, move up to the point on the gasoline information line for May. Then use the scale on the left to find the value of the point. Gasoline cost about \$2.25 in May.

Example

During which month did electricity cost the least?

- A.** January **B.** May **C.** June **D.** December

Step 1 ▶ Read the scale for electricity. The lowest price is at the bottom of the scale. Look for points near the bottom of the scale.

Step 2 ▶ Compare the lower points on the electricity line graph. Remember that the line for electricity uses square points. December has the lowest point, and so, electricity cost the least in December.

Think About It

The word *least* signals you to look for the *lowest price*.

CONNECTED LEARNING

LESSON 13 LESSON 14 BOOK 3

Before You Begin

Decide what information you need. Scan the graph. Read the title, labels, and scales.

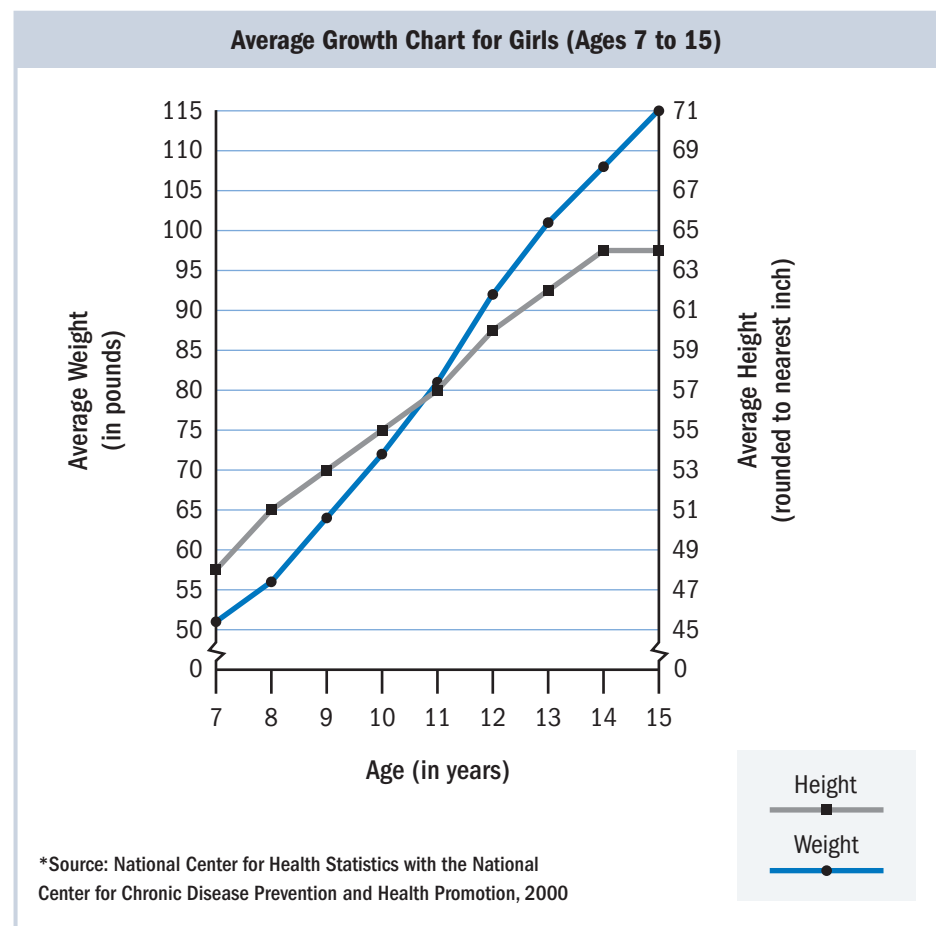
TIPS and HINTS

Remember to use the information line and scale that relate to the information you need to answer the question.

Read the label on the *Height* scale. Measurements are given in inches.

Try It

Sandra has a nine-year-old daughter. She wants to know if her daughter's height is average for her age. She uses the growth chart found at her doctor's office. What is the average height of a nine-year-old girl?



Your Answer: _____

Check Your Answer

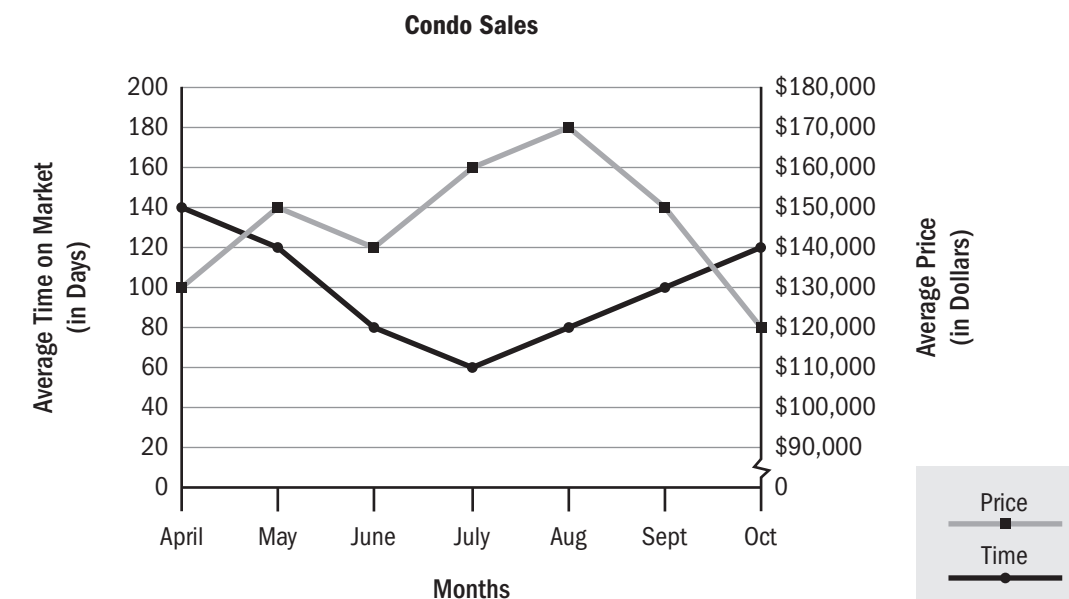
Find 9 on the horizontal axis. From there, move up to the point on the *Height* information line that corresponds to May. Then use the scale on the right to determine the value of that point: 53 inches.

Answer: The average height of a nine-year-old girl is **53 inches**.

GAIN Practice

Directions: Use the chart below to answer the questions that follow.

Gustavo works at a real estate firm. He created the line graph below to track the firm's sales of condos over seven months last year.

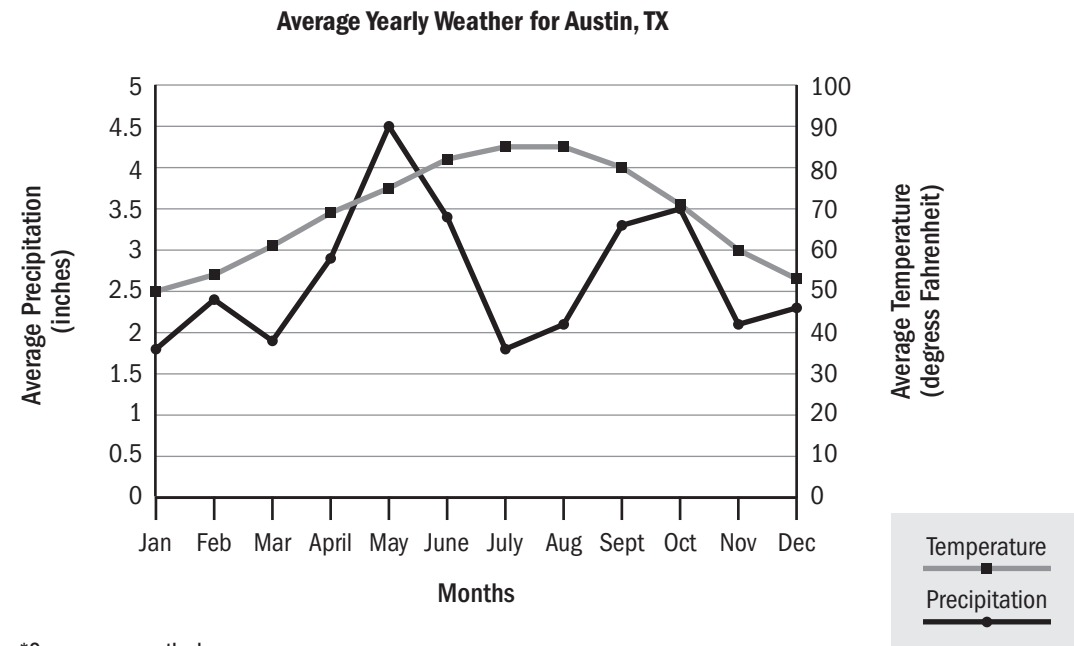


- During which month was the average price of a condo the greatest?
 - April
 - July
 - August
 - October
- What was the average time on market of a condo in April?
 - 80 days
 - 100 days
 - 130 days
 - 140 days
- Which month had the shortest average time on market?
 - July
 - August
 - September
 - October
- What was the average price of a condo in September?
 - \$120,000
 - \$130,000
 - \$140,000
 - \$150,000

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GAIN Practice *continued*

Directions: Use the chart below to answer the questions that follow.



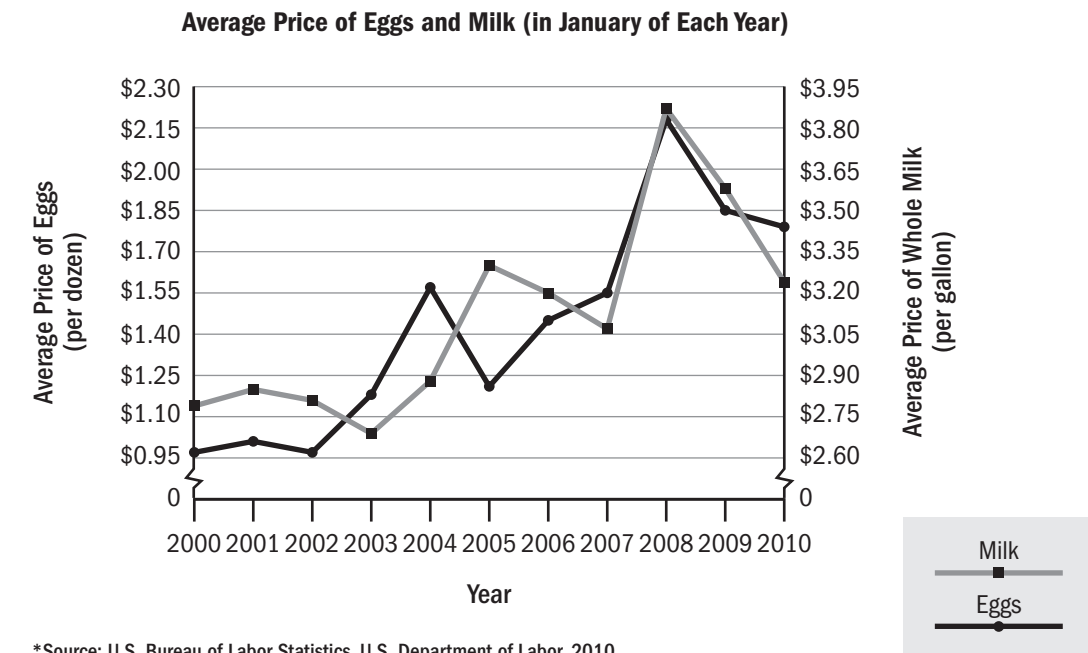
5. What is the average precipitation for Austin during the month of June?
- 1.8 inches
 - 2.9 inches
 - 3.4 inches
 - 6.0 inches

6. Which month has the highest average precipitation?
- January
 - May
 - July
 - October

7. Which month has the lowest average temperature?
- January
 - May
 - July
 - December

8. What is the average temperature for Austin during the month of November?
- 20 degrees
 - 42 degrees
 - 53 degrees
 - 60 degrees

Directions: Use the chart below to answer the questions that follow.



9. What was the average price of a dozen eggs in January, 2009?
- \$1.75
 - \$1.85
 - \$2.16
 - \$3.58

10. In which year was the average price of whole milk the least?
- 2000
 - 2003
 - 2007
 - 2010

11. On average, how much did a gallon of whole milk cost in January, 2004?
- \$0.97
 - \$2.69
 - \$2.88
 - \$3.24

12. When did eggs cost the most?
- January, 2000
 - January, 2004
 - January, 2005
 - January, 2008

Check your answers on page 141.