

Using Directions on a Map



You are going on a camping trip through Olympic National Park in Washington. You will be hiking and do not want to get lost.

1. Complete the compass rose.
2. Your trip begins at Hurricane Ridge. It is in the northeast part of the park. Circle it on your map.

What direction would you look to see Mt. Olympus? southwest

3. You will hike to Lake Crescent from Hurricane Ridge. What direction will you be walking? northwest

4. From Lake Crescent you will hike to Sol Duc Hot Springs. What direction will you be going? south

5. You want to camp in the Hoh Rain Forest. What direction do you hike from Sol Duc Hot Springs to the Hoh Rain Forest? southwest

6. What direction is the Pacific Ocean from the Hoh Rain Forest? west

7. Your last stop will be at the Enchanted Valley. It is in the southeastern part of the park. What direction will you travel to get back to Hurricane Ridge from the Enchanted Valley? north

Skill Check



Test Practice

Vocabulary Check compass rose North Pole intermediate directions
cardinal directions South Pole

Choose from the words above to make each sentence true.

1. North, south, east, and west are the cardinal directions.
2. Directions on Earth are figured from the North Pole
and the South Pole.
3. Northwest and southeast are two of the intermediate directions.

Map Check



1. What state is southwest of South Carolina? Georgia
2. What state is northeast of Kentucky? West Virginia
3. What direction is North Carolina from Tennessee? east
4. What two states are west of the Mississippi River? Arkansas
and Louisiana



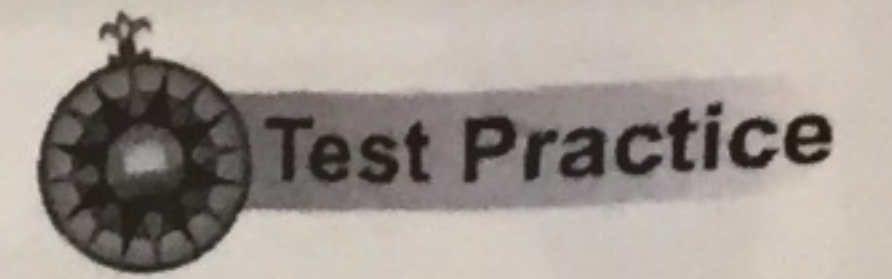
MAP ATTACK!

Follow the steps on page 16 to begin reading this map.

- Find the island that is divided into two separate countries. Name each country and its capital.
 - Haiti, Port-au-Prince**
 - Dominican Republic, Santo Domingo**
- Locate the Bahamas on the map above. Nassau is the capital city of the Bahamas. Draw a line south from Nassau to the bottom of the map.

What countries do you cross? **Cuba, Jamaica**
- Write the intermediate direction that makes each sentence true.
 - Martinique is **northwest** of Barbados.
 - Trinidad and Tobago are **southeast** of Puerto Rico.
 - Guadeloupe is **northeast** of Aruba.
- Draw a conclusion. The West Indies form the northern and eastern boundary of what sea? **Caribbean Sea**

Skill Check



Vocabulary Check symbol boundaries legend political map title

Use each word or phrase to finish a sentence.

- A **political map** shows the boundaries that separate different states or countries.
- The map **title** tells you what the map is about.
- Lines that separate states or countries are **boundaries**.
- The **legend** tells you what the symbols on a map mean.
- A **symbol** on a map can stand for a city, a mountain, or a resource.

Map Check



Match the capital with the province.

- | | |
|----------------------|---------------------|
| 1. B Toronto | A. Manitoba |
| 2. E Edmonton | B. Ontario |
| 3. A Winnipeg | C. Quebec |
| 4. C Quebec | D. Nova Scotia |
| 5. F Victoria | E. Alberta |
| 6. D Halifax | F. British Columbia |

Figuring Distance in the United States



MAP ATTACK!

- **Read the title.** This map shows the United States.
- **Read the map scale.** On the large map, one inch stands for 480 miles.

Use your ruler to figure these distances.

1. What two states are shown in the inset maps above? Alaska
and Hawaii
2. From Phoenix to Kansas City is about 960 miles.
3. From New York City to Washington, D.C. is about 240 miles.
4. From Kansas City to Boston is about 1200 miles.
5. From Nome to Juneau is about 1000 miles.
6. Is it farther from San Francisco to Houston or from Portland to Chicago?
Portland to Chicago

All answers here are approximate.

Figuring Distance in the Great Lakes States



Use your ruler to figure these distances.

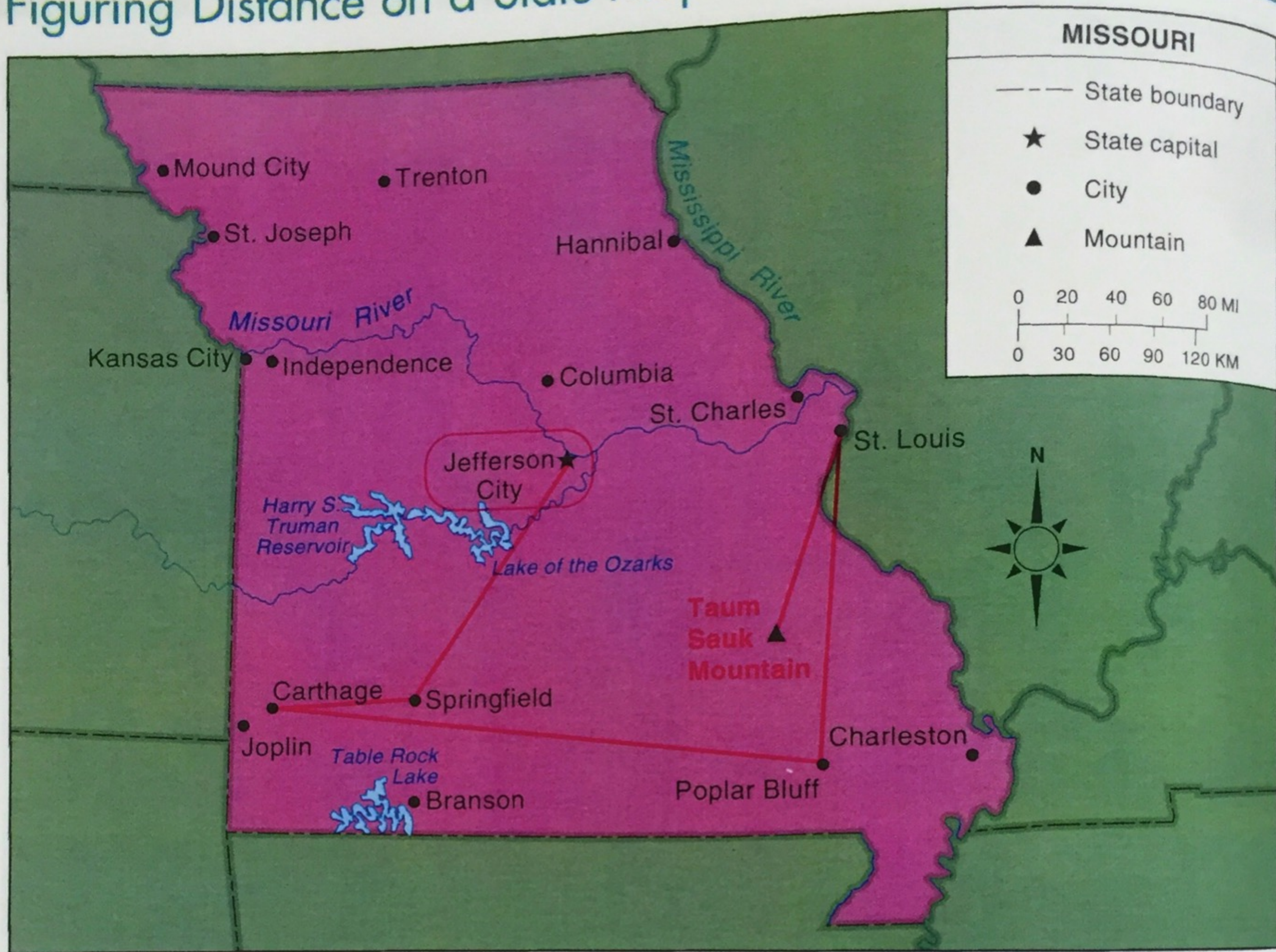
1. From Chicago to Decatur is about 150 miles.
2. From Wausau to Milwaukee is about 150 miles.
3. From Thunder Bay to Minneapolis is about 290 miles.
4. From Toronto to Buffalo is about 75 miles.
5. From Cleveland to Heron Bay is about 525 miles.
6. From Milwaukee to Ottawa is about 600 miles.
7. From Sudbury to Detroit is about 300 miles.
8. From Ottawa to Cincinnati is about 600 miles.
9. Is it farther from Chicago to Sudbury or from Heron Bay to Cleveland?

Heron Bay to Cleveland

10. Is it farther from Ottawa to Kingston or from Milwaukee to Chicago?
The distances are the same. (Depending on the points of measurement, one pair of cities may appear to be farther apart than the other.)

All answers here are approximate.

Figuring Distance on a State Map



Imagine you are going on a tour of Missouri. Use a ruler to draw lines as you figure these distances and directions.

- Find the state capital on the map. Circle it.
 - What direction will you go from the state capital to Springfield? SW
 - From the state capital to Springfield is about 120 miles.
- What direction will you go from Springfield to Carthage? W
 - From Springfield to Carthage is about 60 miles.
- What direction will you go from Carthage to Poplar Bluff? SE
 - From Carthage to Poplar Bluff is about 240 miles.
- What direction will you go from Poplar Bluff to St. Louis? N
 - From Poplar Bluff to St. Louis is about 140 miles.
- There is a mountain about 80 miles southwest of St. Louis and about 60 miles northwest of Poplar Bluff. Find it on the map. Label it Taum Sauk Mountain. You have reached the highest point in Missouri!

Skill Check



Test Practice

Vocabulary Check

map scale miles kilometers inset map

Use each word or phrase to finish a sentence.

1. A map scale shows distance in miles and kilometers.
2. A small map within a larger map is called an inset map.
3. A map scale is used to compare distance on a map with distance on Earth.

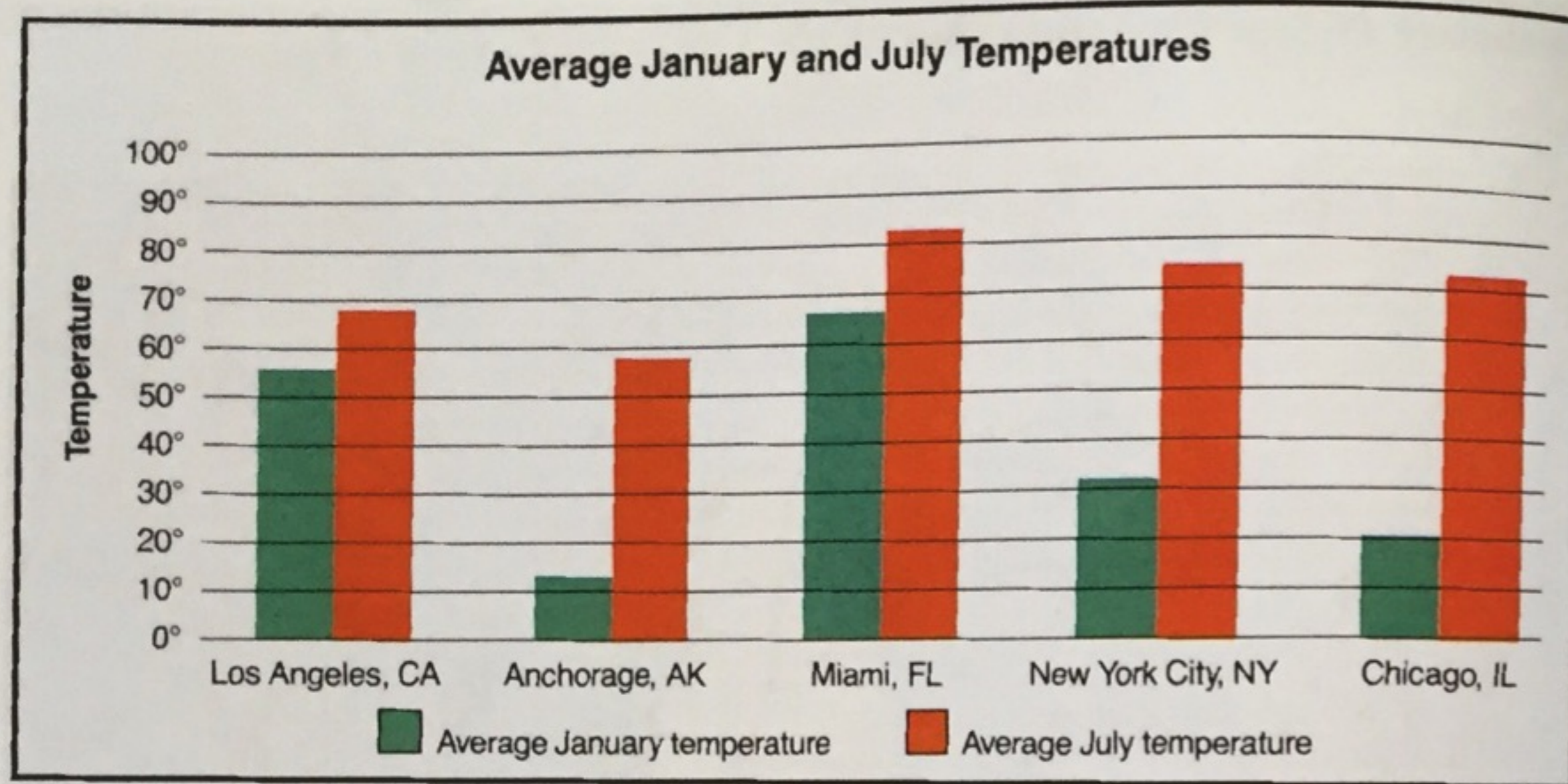
Map Check



Use a ruler and the map scale to figure these distances.

1. From Atlanta to Richmond is about 480 miles.
2. From Memphis to Frankfort is about 360 miles.
3. From Nashville to Miami is about 840 miles.
4. Is it farther from Nashville to New Orleans or from Nashville to Richmond? Nashville to Richmond

All answers here are approximate.



Graphs use colors and shapes to show information. The bars on a **bar graph** allow you to compare facts. This bar graph shows two temperatures for five cities.

GRAPH ATTACK!

Follow these steps to read the bar graph.

1. Read the title. This bar graph shows average January and July temperatures.
2. Read the words at the bottom of the graph.
Name the cities shown on the graph.

Los Angeles, Anchorage, Miami, New York City, Chicago

The green bars stand for average January temperature.

The orange bars stand for average July temperature.

3. Read the words and numbers on the left side of the graph. The numbers on the graph stand for temperature.

4. Compare the bars. Put your finger at the top of the first bar for Miami. Slide your finger to the left. Read the number there.

The average January temperature in Miami is about 67°.

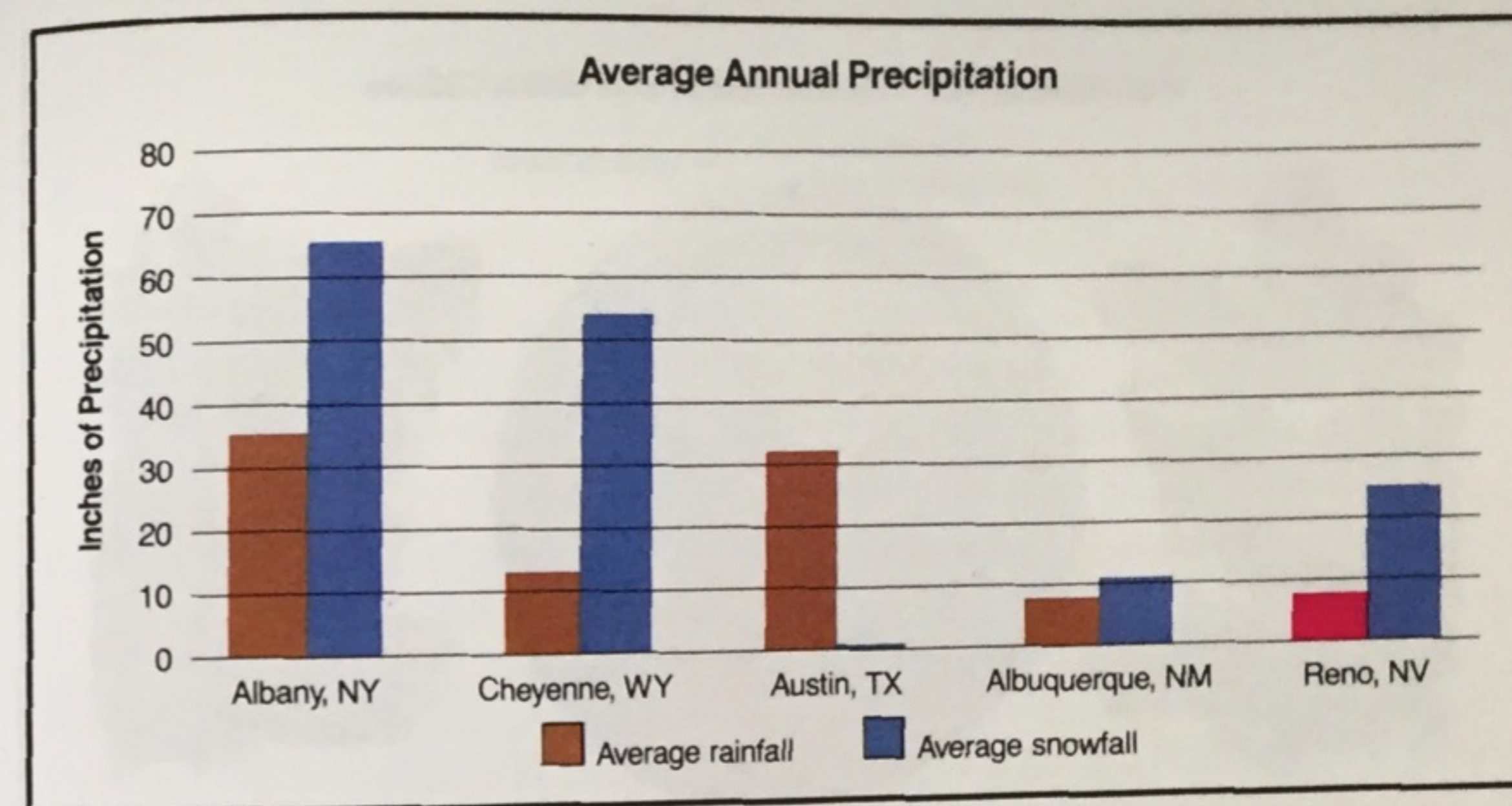
The average July temperature in Miami is about 83°.

Which city has the lowest January temperature? Anchorage

5. Draw a conclusion. Which three cities have the coldest winters?

Anchorage, New York City, and Chicago

Reading a Bar Graph



GRAPH ATTACK!

Follow these steps to read the bar graph.

1. Read the title. This bar graph shows average annual precipitation.
2. Read the words at the bottom of the graph.

The brown bars on this graph stand for average rainfall.

The blue bars on this graph stand for average snowfall.

3. Read the words and numbers at the left side of the graph.
The numbers on the graph stand for inches of precipitation.

4. Compare the bars. Use more or less in each sentence.

Cheyenne receives less snow than Albany.

Austin receives more rain than Albuquerque.

Reno receives more snow than Albuquerque.

Which city receives the most rain? Albany

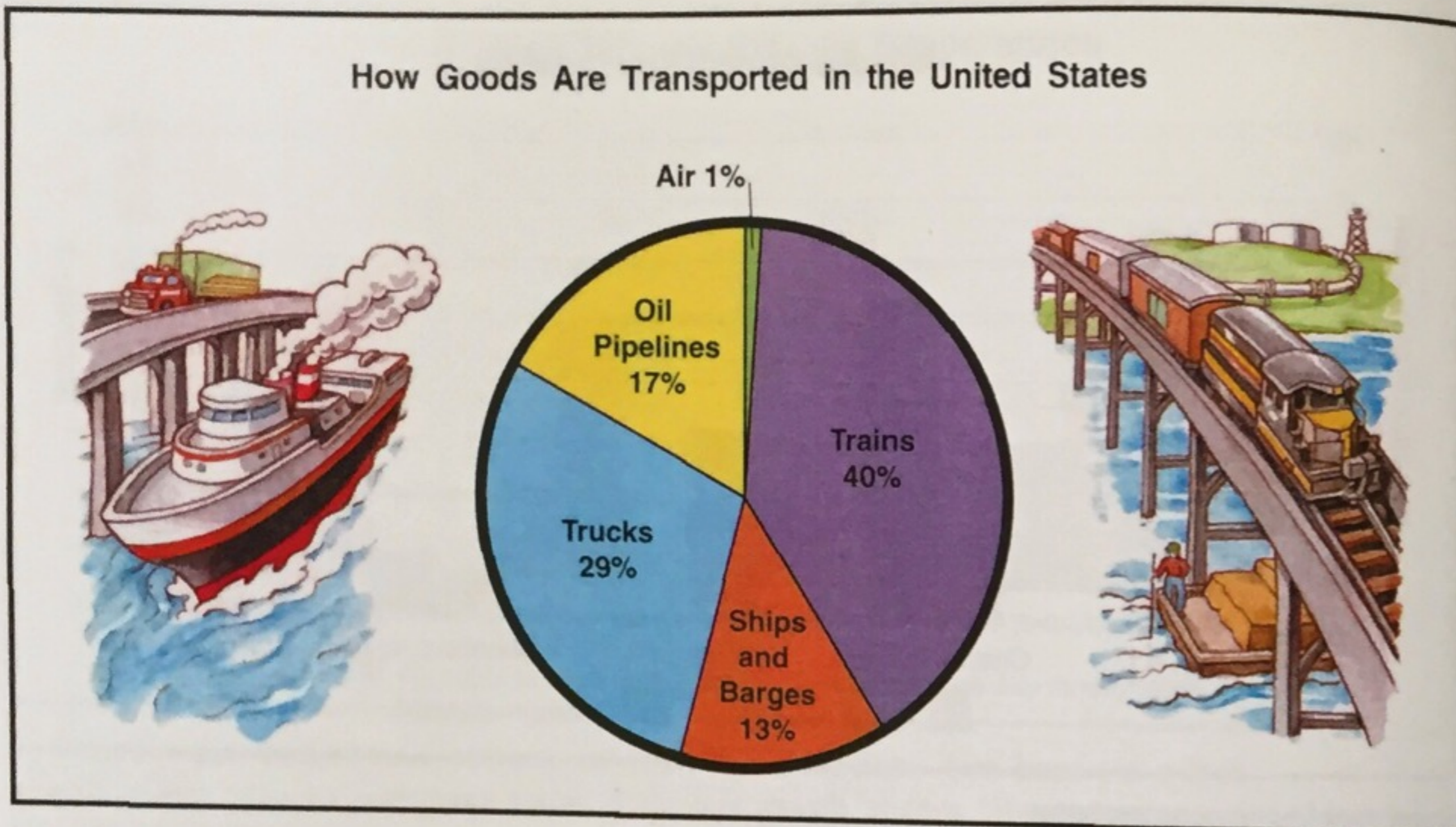
Which city receives the least snow? Austin

5. Finish the graph. Reno, Nevada receives 8 inches of rain. Add a bar showing the amount of rain Reno receives.

6. Draw a conclusion. Which city gets about the same amount of rain

as snow? Albuquerque

How Goods Are Transported in the United States



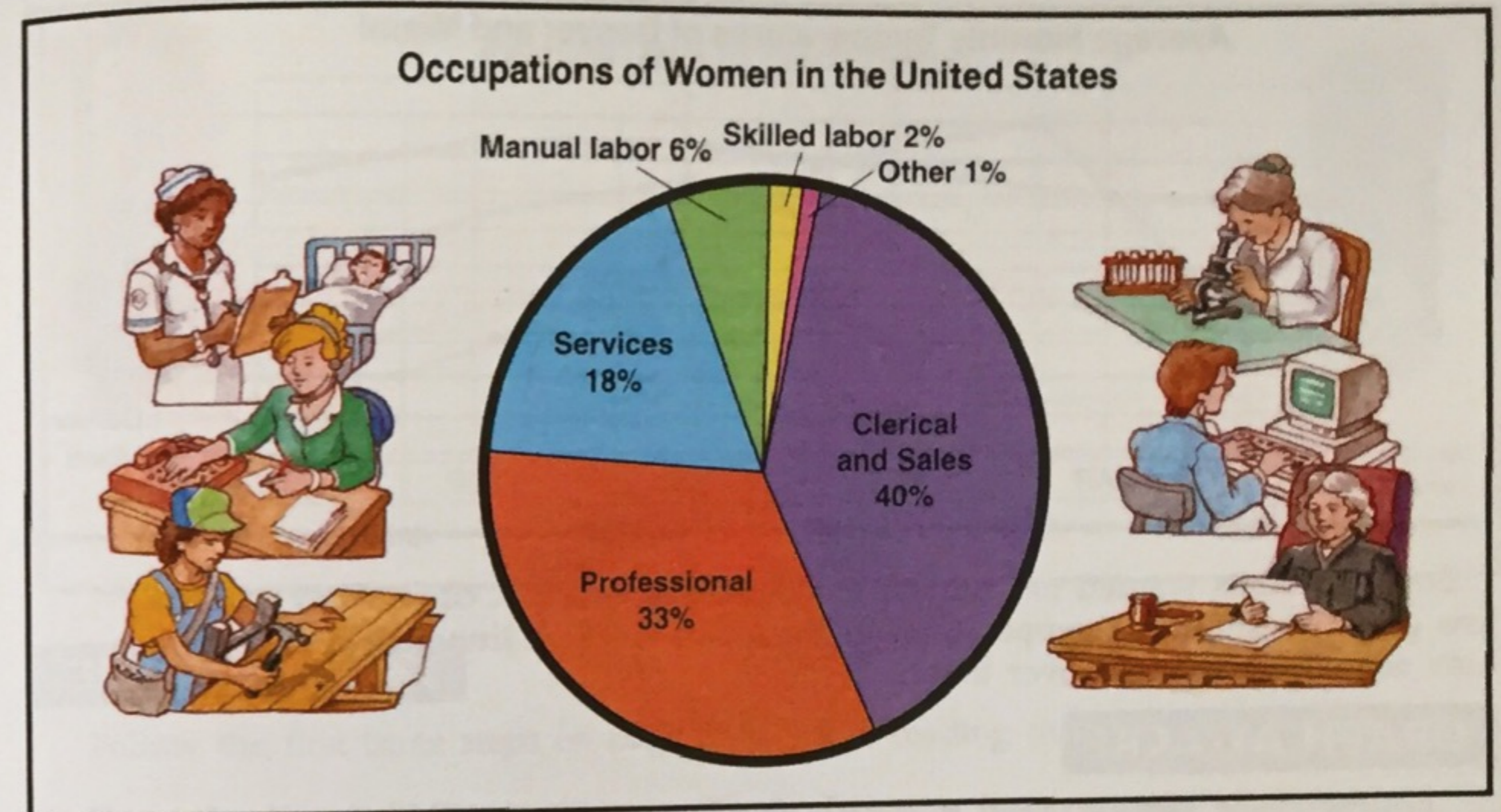
A circle graph shows the parts that make up a whole set of facts. Each part of the circle is a percentage of the whole. All the parts together equal 100%. This circle graph shows the percentage of all goods moved by each method of transportation.

GRAPH ATTACK!

Follow these steps to read the circle graph.

1. Read the title. The whole circle shows how goods are transported in the United States.
2. Read each part of the circle. Each part of the circle stands for a different way of transporting goods. What are the different ways? trains, trucks, oil pipelines, ships and barges, and air.
3. Compare the parts. Read clockwise around the circle from the biggest part. Write More or Fewer in each sentence.
 - More goods are carried by trucks than by ships and barges.
 - Fewer goods are carried by trucks than by trains.
 - More goods are carried by trains than by oil pipelines and ships and barges together.
4. Draw a conclusion. What two methods of transportation carry about the same amount of goods? oil pipelines and ships and barges.

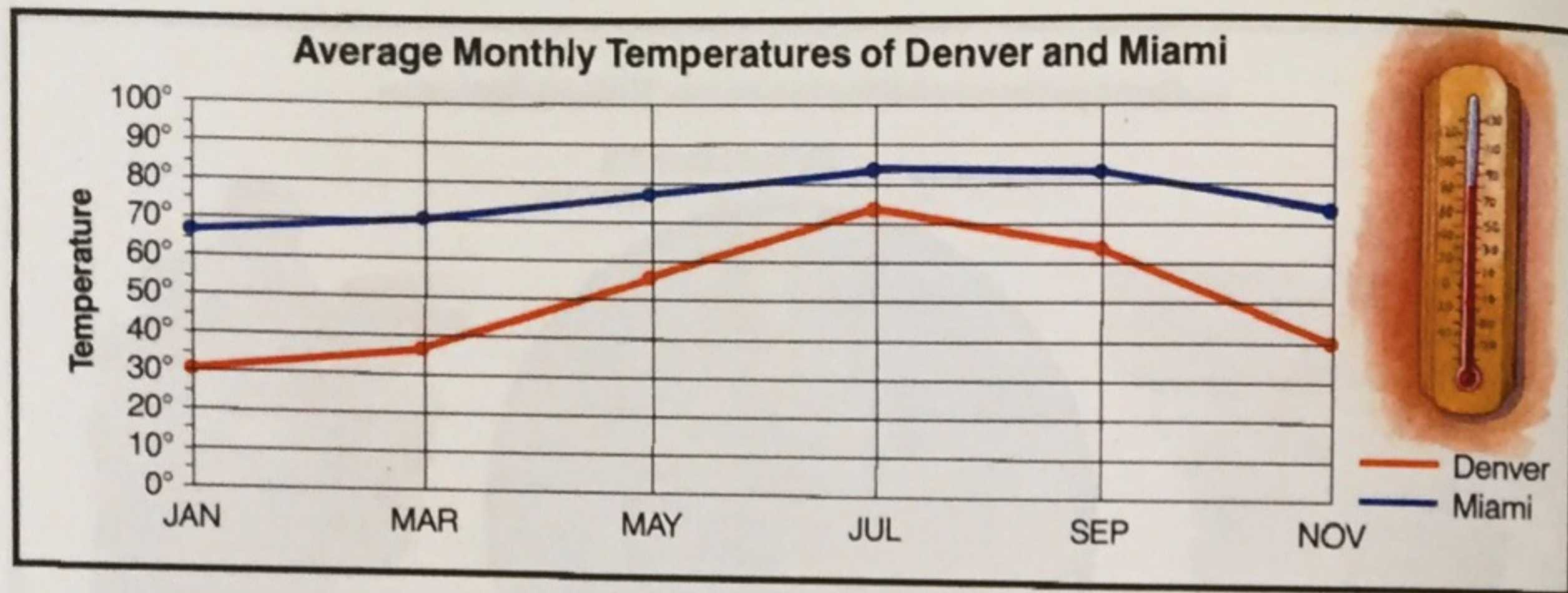
Occupations of Women in the United States



GRAPH ATTACK!

Follow these steps to read the circle graph.

1. Read the title. The circle graph shows occupations of women in the U.S.
2. Read each part of the circle.
 - What percent of women hold clerical and sales positions? 40%
 - What percent of women hold manual labor positions? 6%
 - What percent of women hold positions in manual and skilled labor? 8%
3. Compare the parts of the circle. Use More or Fewer in each sentence.
 - Fewer women hold positions in skilled labor than in manual labor.
 - Fewer women hold professional positions than clerical and sales positions.
 - Fewer women hold professional positions than clerical and sales positions.
 - Would you be more likely to meet a woman who was a professional or a woman who was in services? a professional
4. Draw a conclusion. Most women work in what three areas? clerical and sales, professional, and services

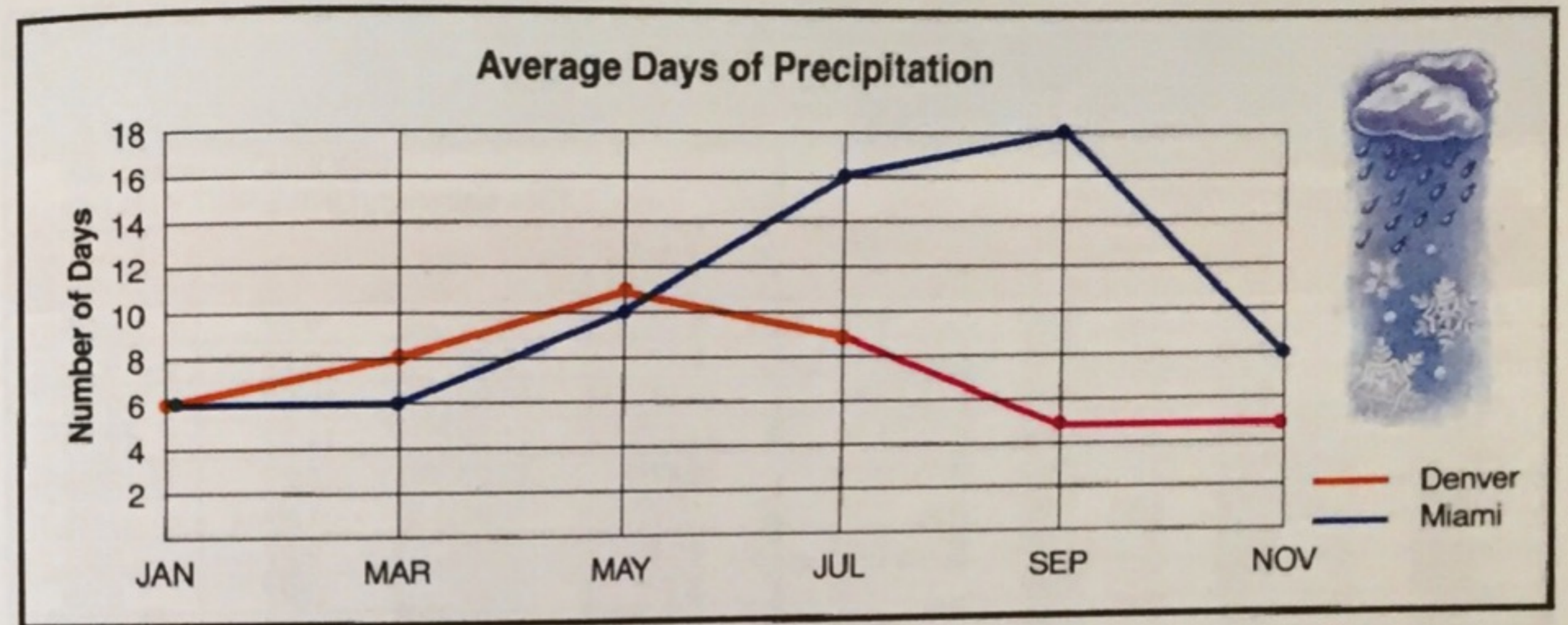


Some students wanted to compare the climate of two U.S. cities. They made a line graph to show the temperatures of these two cities. A **line graph** shows how something changes over time.

GRAPH ATTACK!

Follow these steps to read a line graph.

1. Read the title. This line graph shows average monthly temperatures of Denver and Miami.
2. Read the words along the bottom of the graph. This line graph shows the average temperatures for the months of January, March, May, July, September, and November.
3. Read the words and numbers on the left side of the graph. These numbers stand for temperature. The highest number is 100°.
4. Read the lines on the graph. Find the line for Miami. Put your finger on the dot above January. Slide your finger to the left and read the temperature. In January the average temperature in Miami is about 67°. In January the average temperature in Denver is 30°.
5. Compare the lines. Which city has the hottest summer temperatures? Miami. Which city has the coldest temperatures? Denver.
6. Draw a conclusion. Which city's temperatures change the least over the year? Miami. How do you know? Answers will vary but may include: Denver's temperatures change more with the seasons than Miami's, as shown in a line that is not as even as Miami's.



GRAPH ATTACK!

Follow the first three steps on page 88 to begin reading this line graph.

1. Trace the line for Miami with your finger. Put your finger at the highest point on the line. What month does the dot stand for? September. How many days of precipitation did Miami have in that month? 18. How many days of precipitation did Miami have in May? 10. In what two months did Miami have the same number of days of precipitation? January and March.
2. Finish the graph. Finish the line for Denver. Add dots for this information. Then complete the line. September 5 days November 5 days.
3. Compare the lines. Which city had more days of precipitation in July? Miami. Which city had more days of precipitation in May? Denver. Which city had fewer days of precipitation in November? Denver. In what month did Miami and Denver have the same number of days of precipitation? January.
4. Draw a conclusion. Which city had the biggest change in number of days of precipitation overall? Miami. How do you know? Answers will vary but may include: The line for Miami shows a greater difference in the number of days of precipitation than the line for Denver.

University Hills Bus Schedule WEEKDAY & SATURDAY SERVICE							
OUTBOUND from downtown (Bus sign reads AIRPORT)				INBOUND to downtown (Bus sign reads UNIVERSITY HILLS)			
5th & Congress	9th & Park	12th & Park	Airport & River Road	12th & Park	9th & Park	9th & Capitol	5th & Capitol
7:45	7:53	8:00	8:10	8:17	8:22	8:27	8:35
8:45	8:53	9:00	9:10	9:17	9:22	9:27	9:35
9:45	9:53	10:00	10:10	10:17	10:22	10:27	10:35
10:45	10:53	11:00	11:10	11:17	11:22	11:27	11:35
11:45	11:53	12:00	12:10	12:17	12:22	12:27	12:35
12:45	12:53	1:00	1:10	1:17	1:22	1:27	1:35
1:45	1:53	2:00	2:10	2:17	2:22	2:27	2:35
2:45	2:53	3:00	3:10	3:17	3:22	3:27	3:35
3:45	3:53	4:00	4:10	4:17	4:22	4:27	4:35
4:45	4:53	5:00	5:10	5:17	5:22	5:27	5:35

A table shows information using rows and columns. Tables put a large amount of information in a small space. This table is a bus schedule.

TABLE ATTACK!

Follow these steps to read the table.

1. Read the title. This table shows the University Hills bus schedule.
2. Read the words at the top of the table.

Where is the first stop? 5th and Congress

When the bus is outbound, what does the bus sign read? Airport

What do the numbers in each column stand for? time of day

On what day could you not ride this bus? Sunday

3. Read the table. If you caught the bus at 5th and Congress at 9:45,

what time would you get to Airport and River Road? 10:10

If you caught the bus at 12th and Park at 2:17, what time would you

get to 9th and Capitol? 2:27

If you needed to be at the airport at 12:30, what time should you catch

the bus at 5th and Congress? 11:45

If your plane arrived at 2:00, what is the earliest you could arrive at

5th and Capitol? 2:35

4. Draw a conclusion. Where does the bus make a loop and head back

toward downtown? at Airport and River Road

Road Mileages Between U.S. Cities							
Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Boston, MA	1,215	—	461	1,003	654	1,819	2,004
Chicago, IL	667	1,003	545	—	346	936	1,015
Dallas, TX	647	1,819	1,393	936	1,208	—	887
Denver, CO	1,356	2,004	1,546	1,015	1,347	887	—
Detroit, MI	734	751	277	283	171	1,218	1,284
Kansas City, MO	753	1,427	995	532	806	554	603
Los Angeles, CA	2,092	3,046	2,512	2,042	2,374	1,446	1,029
Miami, FL	812	1,529	1,425	1,382	1,250	1,367	2,069
Minneapolis, MN	1,079	1,417	958	409	760	999	924
New Orleans, LA	351	1,563	1,254	935	1,070	525	1,409
New York, NY	985	215	400	797	466	1,589	1,799
Philadelphia, PA	897	321	414	768	437	1,501	1,744
Salt Lake City, UT	1,868	2,395	1,936	1,406	1,738	1,410	531
San Francisco, CA	2,472	3,135	2,677	2,146	2,478	1,827	1,271
Washington, DC	758	458	384	695	370	1,362	1,686

TABLE ATTACK!

Follow these steps to read the table.

1. Read the title.

This table shows road mileages between U.S. cities.

2. Read the words at the top of the table. What cities are listed across the top? Birmingham, Boston, Buffalo, Chicago, Cleveland, Dallas, Denver

3. Read the words at the left of the table. How many cities are listed? 15

4. Read the table. Put your finger on Boston at the left of the table. Slide your finger to the right until you come to the number under Chicago. Read that number.

The distance from Boston to Chicago is 1003 miles.

5. Finish the table. Add these distances.
 Detroit to Buffalo 277 miles
 Los Angeles to Boston 3,046 miles
 New Orleans to Dallas 525 miles

6. Draw a conclusion. Which of the cities listed is farthest from Dallas?

Boston