The table below shows averages of temperature and precipitation for the past 20 years in an area of the United States.

20-Year Averages

Months	Average Temperature (°F)	Average Precipitation (in.)
Jan.-Mar.	52	0.6
Apr.-June	75	0.2
July-Sept.	87	0.4
Oct.-Dec.	56	0.3

For which of the following would this data be most useful?
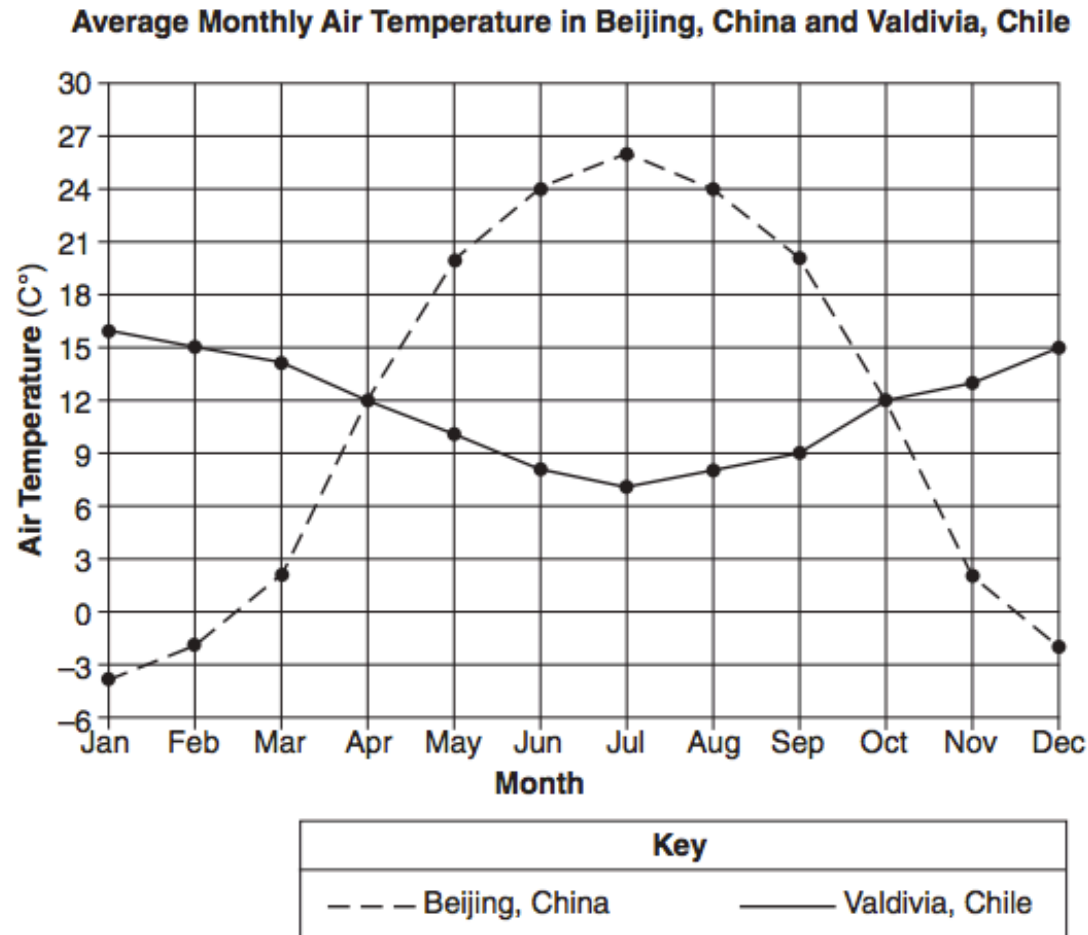
a) understanding the climate of the area

b) showing the effect of weather on climate

c) predicting how the weather will change from day to day

d) demonstrating the difference between weather and climate

The map below shows a portion of the United States.

What factor causes the average annual temperature in South Carolina to be greater than the average annual temperature in New York?

The graph below shows the average monthly temperatures in a one-year period for two cities: Beijing, China and Valdivia, Chile.

Average Monthly Air Temperature in Beijing, China and Valdivia, Chile

Key	
– – – Beijing, China	——— Valdivia, Chile

In which hemisphere is each city located? Justify your answer.
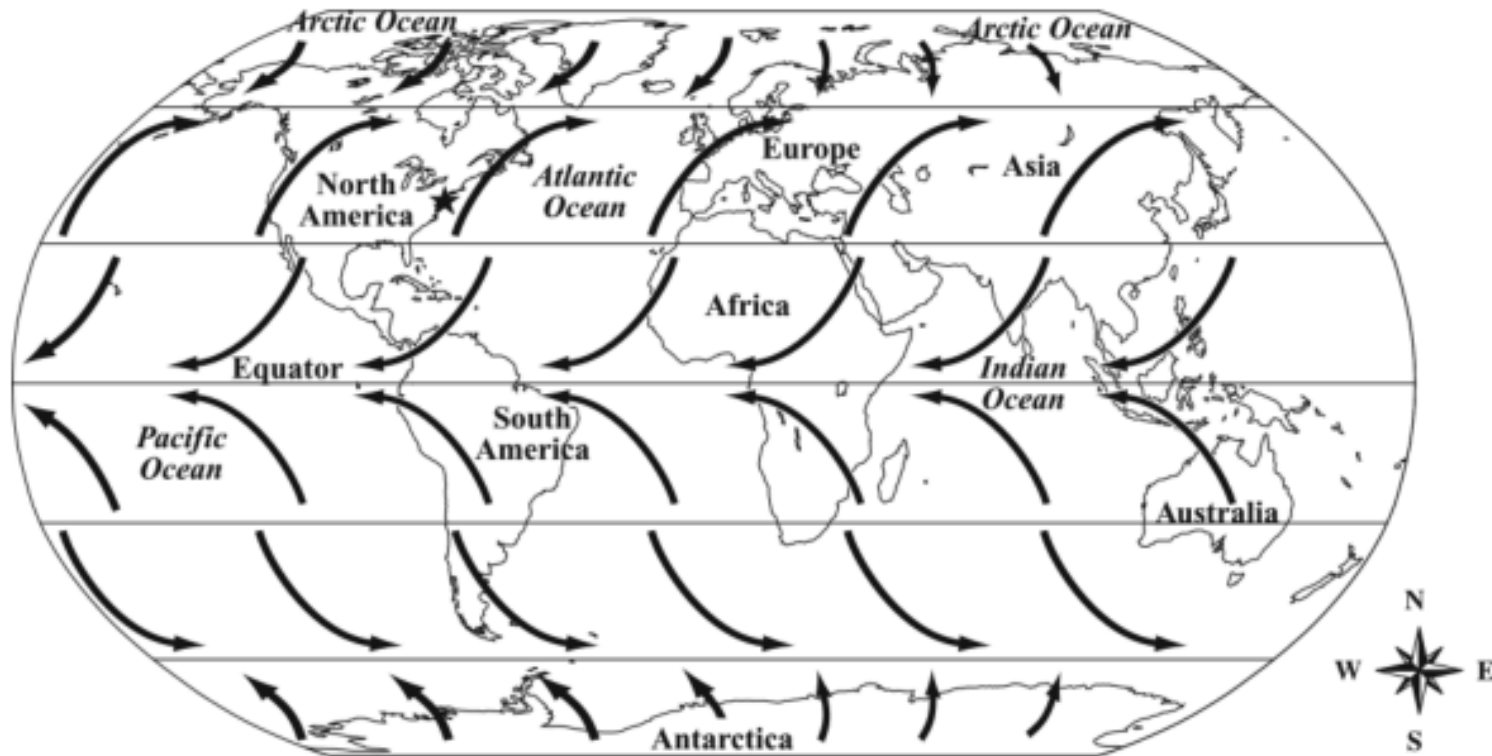
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Kenny is taking a trip to Central America during the winter. He finds out that the temperature in Central America is warm year round. Explain why this is.

State one latitude that has a dry climate due to diverging planetary winds.

On the graph on your answer sheet, draw a line to show the general relationship between elevation and average annual temperature.

Mt. Marcy often has the coldest temperatures in New York State. Which two climate factors most likely cause this?

The map below shows global wind patterns. The east coast of the United States is marked with a star.

Global winds blow in the directions shown on the map. Winds blowing from the east coast of the United States have the most effect on the weather of which continent?

The map below shows Springfield, Missouri and San Francisco, California which have similar latitudes, but have very different climates. Springfield has very hot summers and cold winters, while San Francisco has about the same temperatures all year.

What is the most likely reason that the two cities have such different climates?

A student drew a graph to compare the average monthly temperatures of two cities in the United States which have the same latitude and same elevation. City A is located inland and City B is located on the coast of the Atlantic Ocean. On the graph on your answer sheet, label the line that represents each city.

The Great Lakes influence the weather and climate of the nearby cities. Because Buffalo, New York is on the shore of Lake Erie, it receives heavy, lake-effect snowstorms. On November 18, 2014, Buffalo received over five feet of snow! The photograph below shows a house in Buffalo on November 19, 2014.

On the map on your answer sheet, draw one straight arrow in Lake Erie to show the winter wind direction most likely to bring the heaviest lake-effect snows to Buffalo.

The map below shows the location of the Gulf Stream, an ocean current that moves tropical water along the east coast of the United States.

How does the Gulf Stream current affect the temperature along the east coast?

The map below shows Labrador and England which both near the ocean, at a similar elevation, and at a similar latitude.

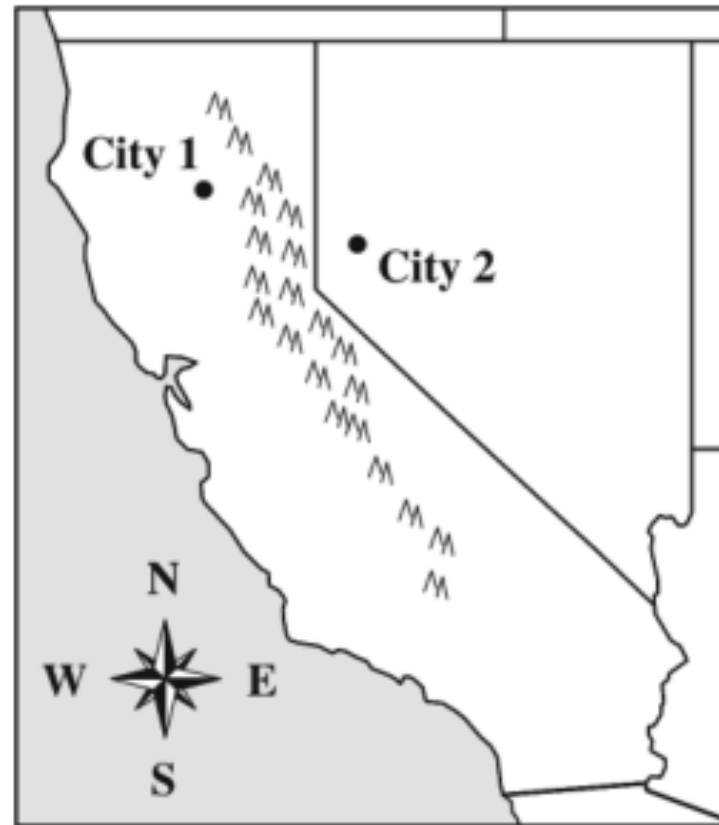Why would Labrador have a colder climate than England?

The picture below shows the scene from the movie "Finding Nemo" when Marlin and Dory were traveling to Sydney on the E.A.C., or the East Australian Current.

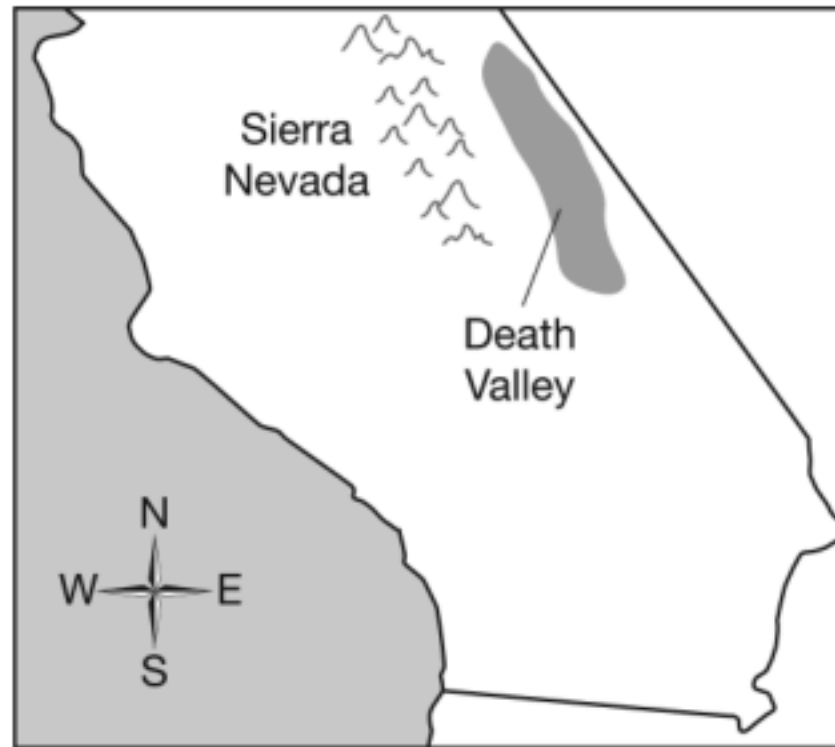Is the East Australian Current a cool or warm ocean current?

Which event temporarily slows or reverses surface ocean currents in the equatorial region of the Pacific Ocean, causing a disruption of normal weather patterns?

The map below shows the location of two cities in California and Nevada and some of the mountains in the region.
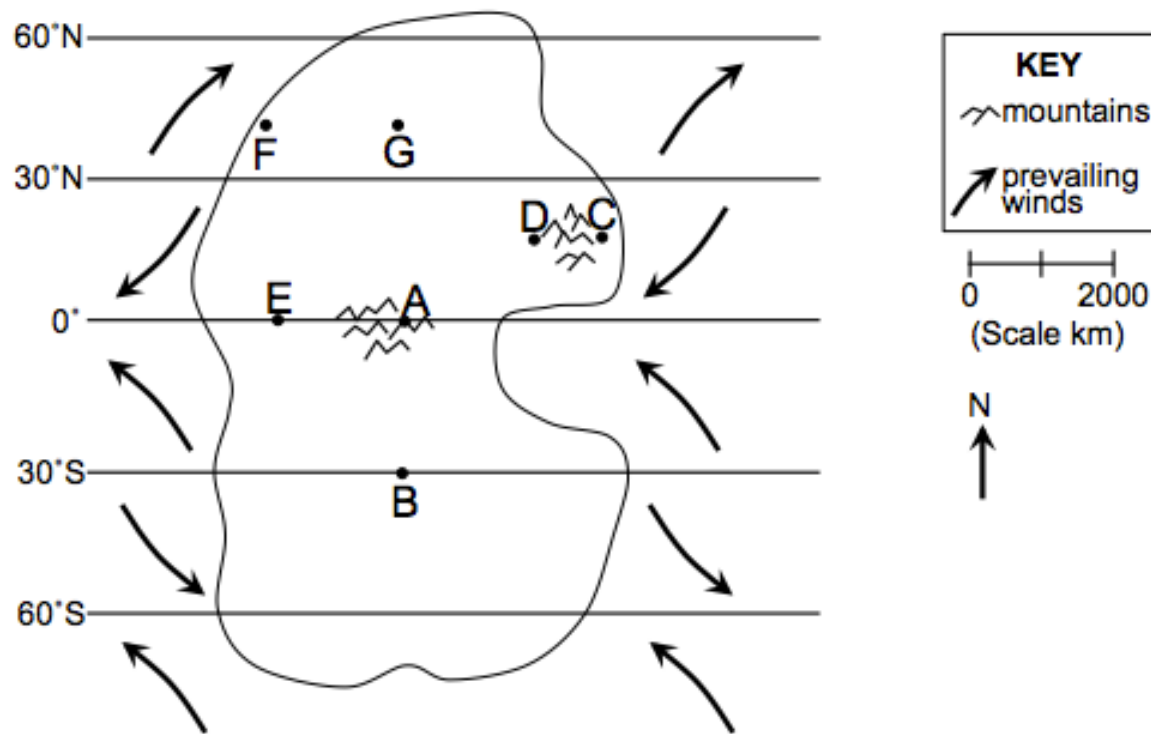

Which city would have cooler temperatures and greater precipitation? Explain your answer.

The map below shows a portion of California. Death Valley, one of the driest places on Earth, is located on the eastern side of the Sierra Nevada mountain range.
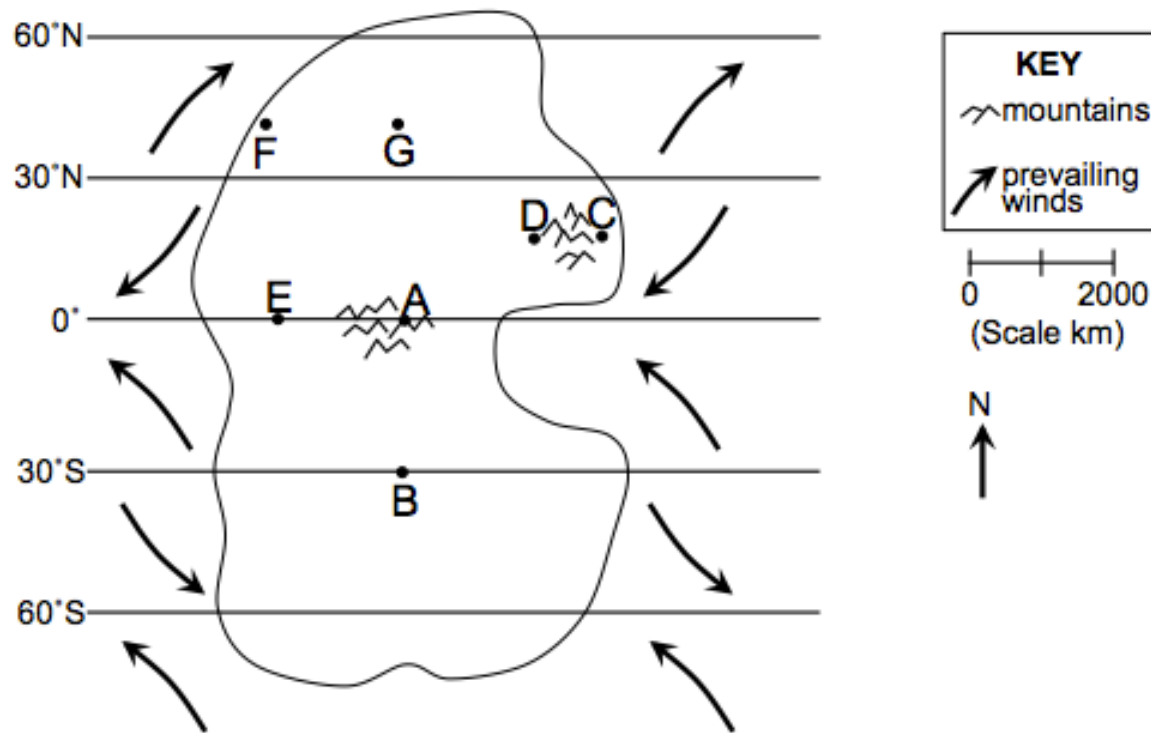

Why is it so much drier on the eastern side of the mountains than on the western side?

The map below represents an imaginary continent on the Earth. The continent is surrounded by oceans. Two mountain ranges and seven locations, A through G, are shown.
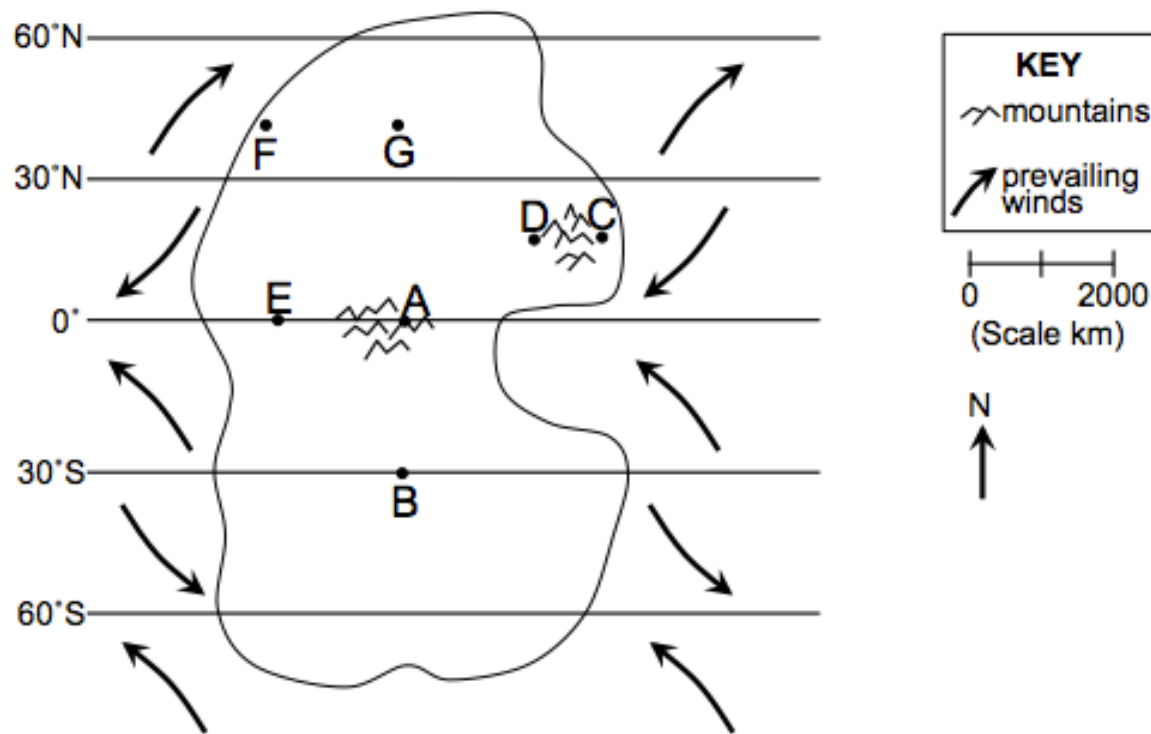

Which location has the greatest average annual temperature? Explain your answer.

The map below represents an imaginary continent on the Earth. The continent is surrounded by oceans. Two mountain ranges and seven locations, A through G, are shown.
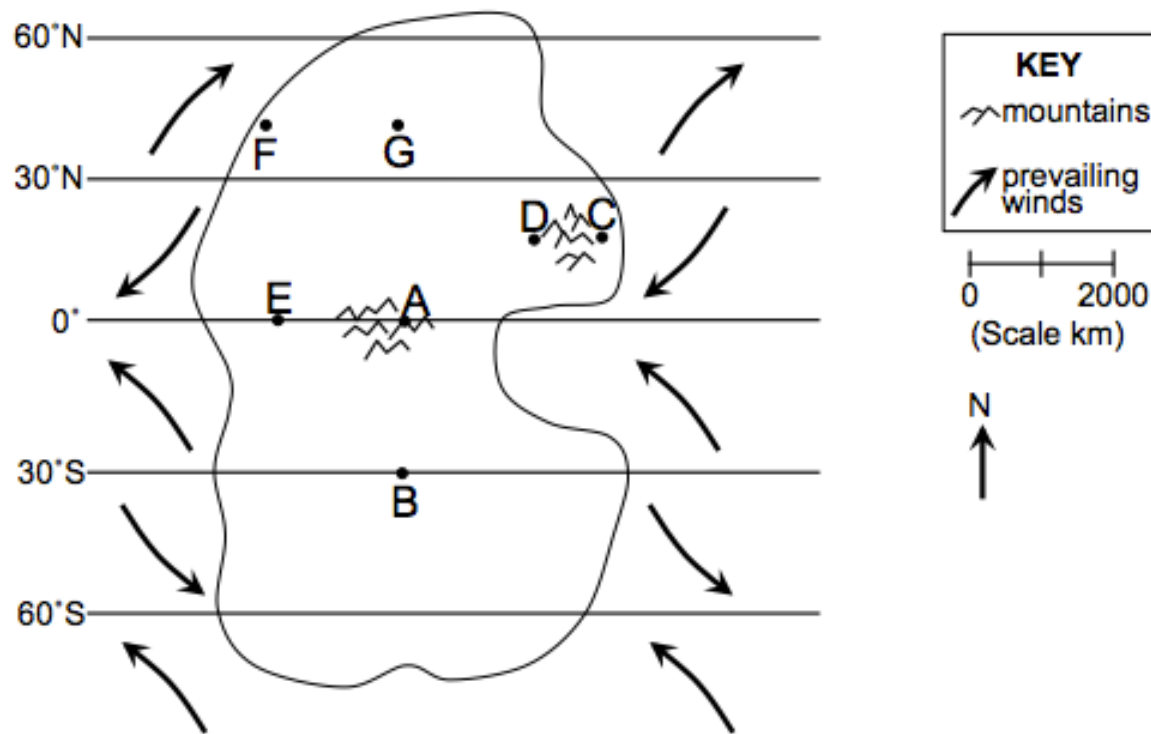

Which location would experience winter in the month of July? Explain your answer.

The map below represents an imaginary continent on the Earth. The continent is surrounded by oceans. Two mountain ranges and seven locations, A through G, are shown.
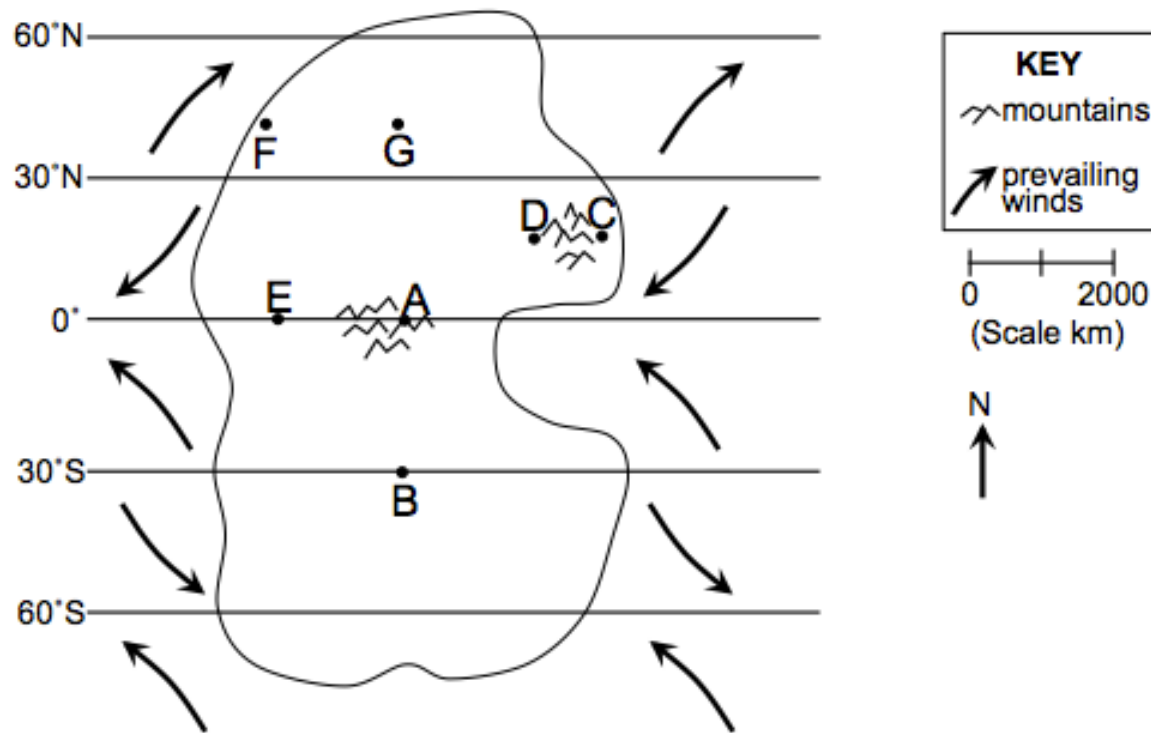

How does the amount of precipitation at location B compare to that of location E? Explain your answer.

The map below represents an imaginary continent on the Earth. The continent is surrounded by oceans. Two mountain ranges and seven locations, A through G, are shown.

Why would location A have a lower average annual temperature than location E?

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The map below represents an imaginary continent on the Earth. The continent is surrounded by oceans. Two mountain ranges and seven locations, A through G, are shown.
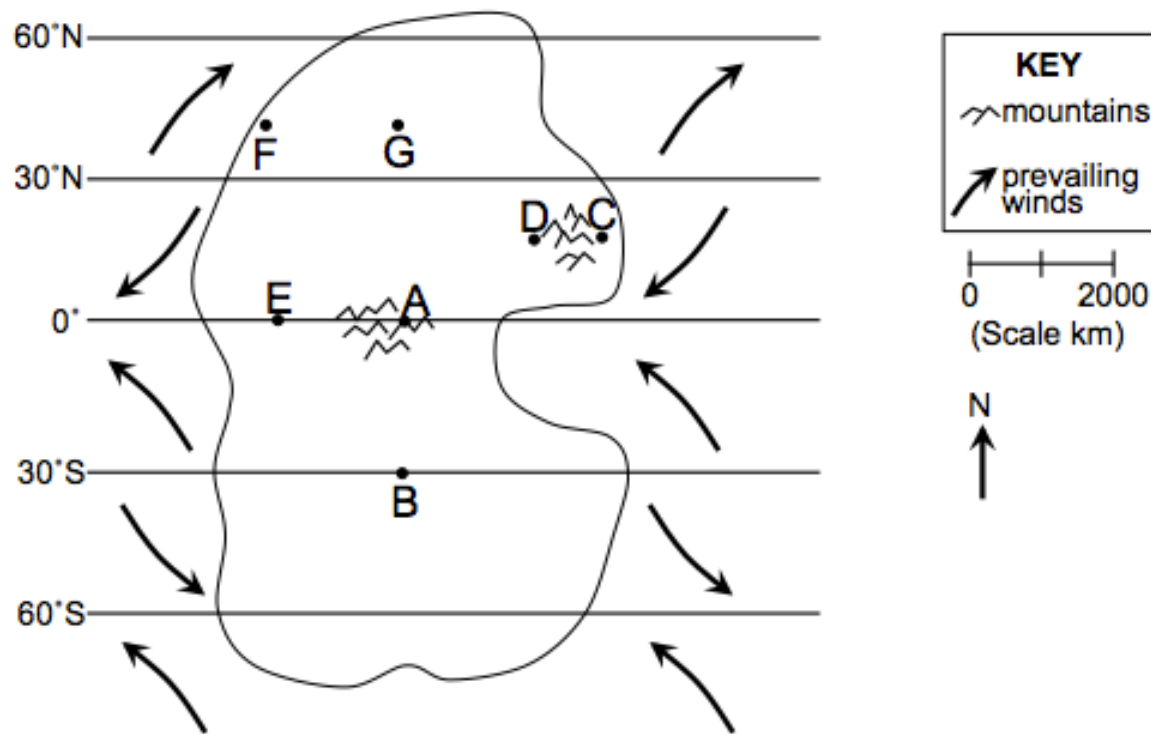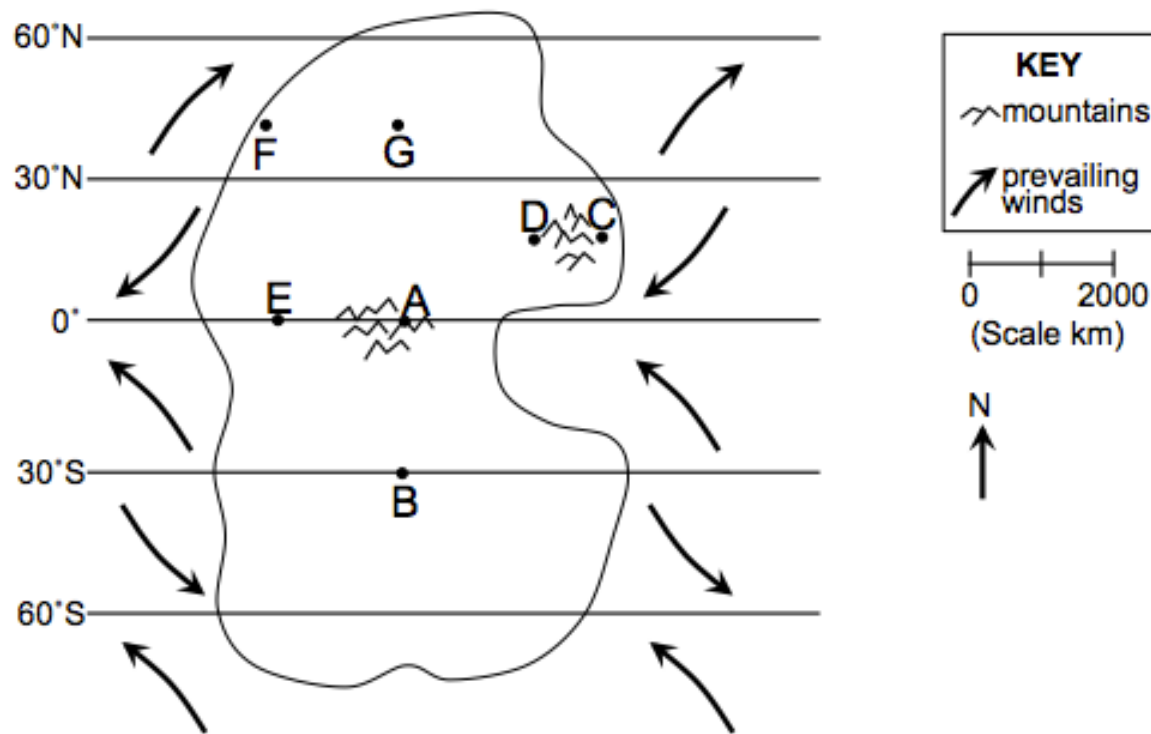

How does the temperature and humidity of city C compare to city D? Explain your answer.

The map below represents an imaginary continent on the Earth. The continent is surrounded by oceans. Two mountain ranges and seven locations, A through G, are shown.

Which location will have a greater temperature range, location F or G? Explain your answer.

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The map below represents an imaginary continent on the Earth. The continent is surrounded by oceans. Two mountain ranges and seven locations, A through G, are shown.

What is the name of the planetary wind belt location F is found in?

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