Unit 5 Quiz 1 Review:
Weather Comparisons, Temperature Conversions,
Car Rentals and Total Cost of a Trip

1. You are trying to make a decision about which destination for your vacation has the best weather. The following map shows average temperature in the United States in December. (3 pts)
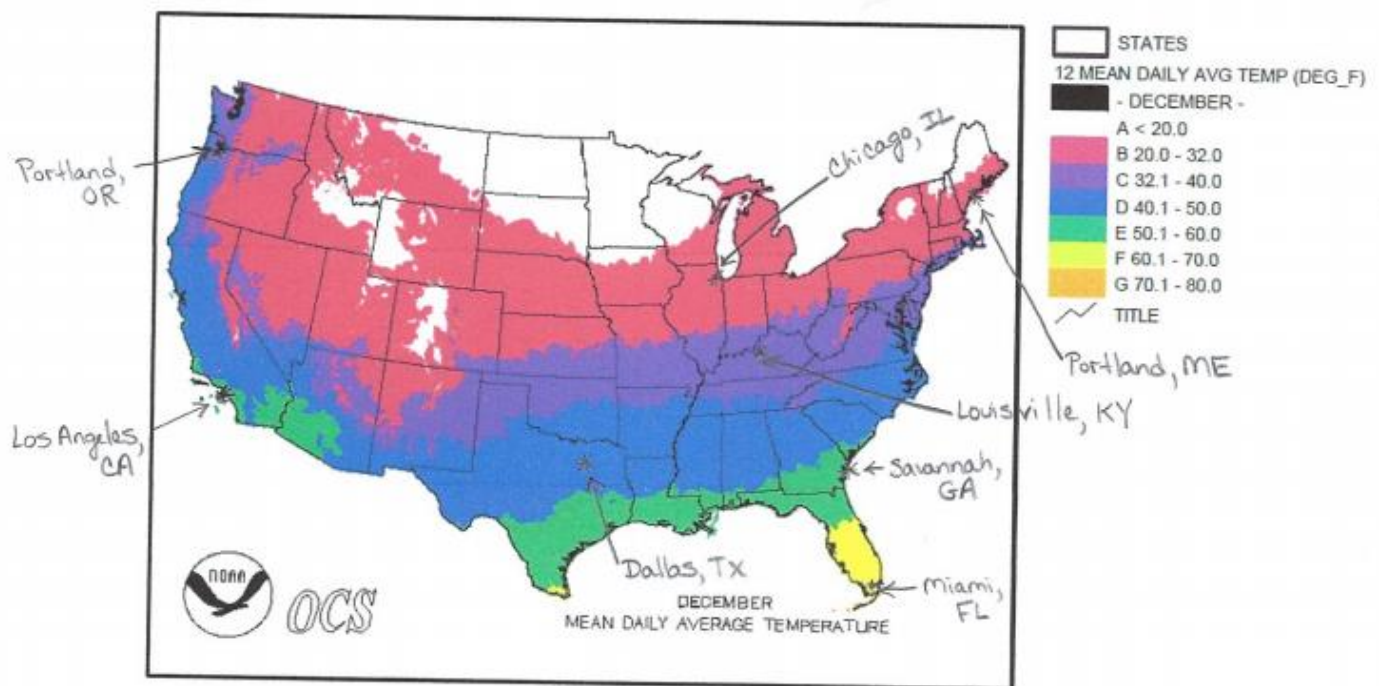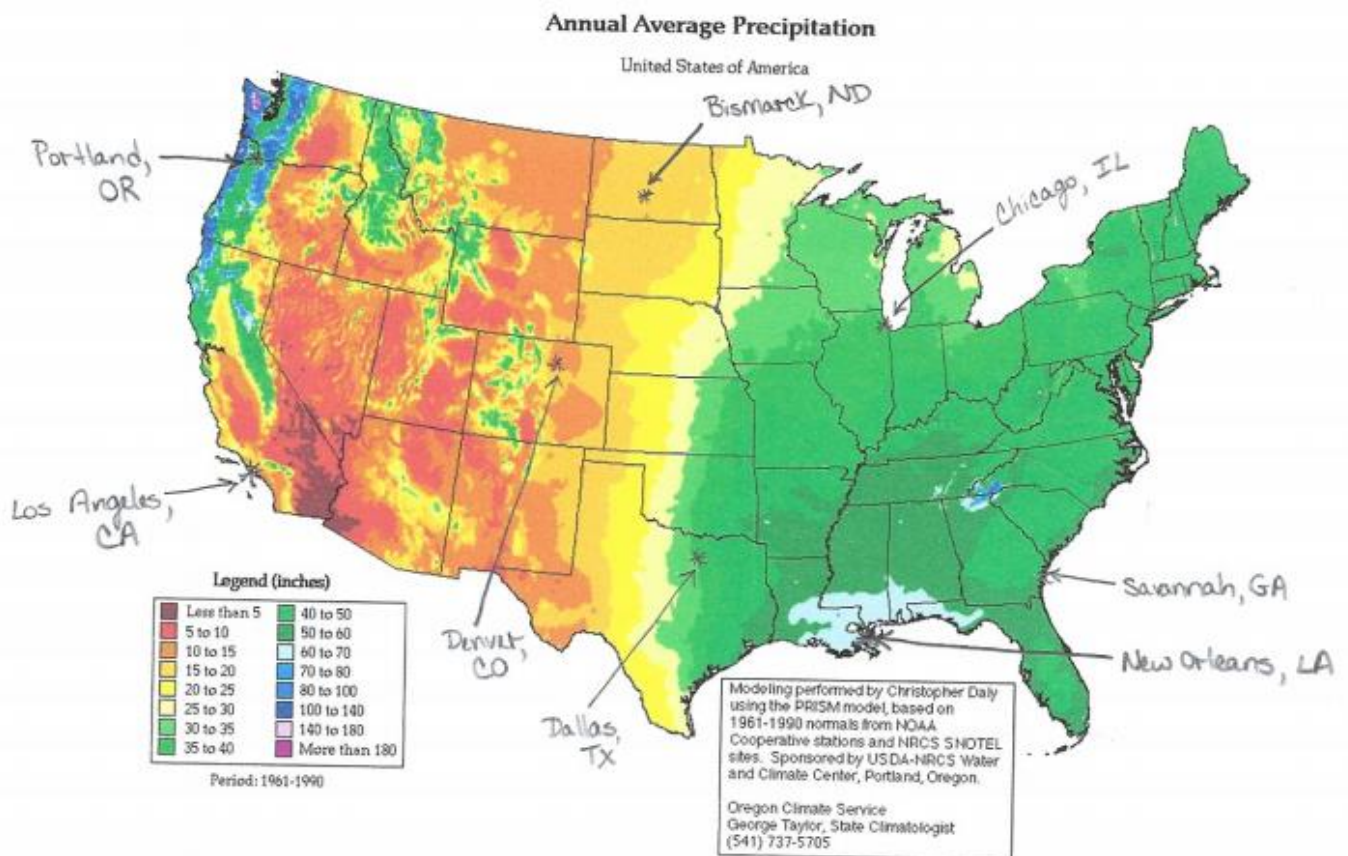

a. Use the U.S. map above to determine which of the following cities would give you a _higher average temperature_ (be sure to show the math that justifies your answer):

  Chicago, IL or Portland, OR

2. You also are looking for a vacation destination where it doesn't rain too much. The following map shows average precipitation in the United States annually.

(3 pts)

Annual Average Precipitation
United States of America

a. **Use the U.S. map above to determine which of the following cities would give you** _lower average precipitation._ **(be sure to show the math that justifies your answer):**

Los Angeles, CA or Savannah, GA

The following formula is used to convert temperatures from degrees Celsius to degrees Fahrenheit:

$$F = \frac{9}{5}C + 32$$

3. What formula can you use to _estimate_ the temperature mentally?

4. If you see that the weather in India says it is 33°C. What is the temperature in degrees Fahrenheit? (Round to the nearest degree)

Actual Temperature:	_Estimated Temperature:_	_How much was the estimate off by?_

5. Your cousin is visiting Alaska and called to say the daily low temperature yesterday reached -22°C. What would this be in degrees Fahrenheit? (Round to the nearest degree)

Actual Temperature:	_Estimated Temperature:_	_How much was the estimate off by?_

6. If the temperature in Saugerties is 23°F, what would this be in degrees Celsius? (Round to the nearest degree)

Actual Temperature:	_Estimated Temperature:_	_How much was the estimate off by?_

7. A few months before taking a trip you want to figure out exactly how much the vacation will cost. Use the following information to answer questions a-c and remember to show your work. If necessary, round to the nearest cent.

   They are planning a 5-day, 4-night trip. The hotel costs $101 per night. They plan to spend $300 on souvenirs and will rent a car at $37 per day. They estimate to spend $80 for gas and will eat 14 meals for 3 people at about $9 per meal. The round-trip airline tickets cost $332 each.

   a. What will be the <u>total cost</u> of the trip?

   b. What will the total cost be for <u>each person</u>?

   c. What will the cost be <u>per person</u> <u>per day</u>?

8. A few weeks before the trip, you find another car rental company that claims their rates beat all others. Determine what the total cost would be with this new company that charges the following rates. If necessary, round to the nearest cent.
   i. $28.50 per day plus $8.45 daily for collision damage coverage
   ii. 18 cents per mile after the first 200 miles
   a. How much would this new car rental company charge if you and your friends plan to drive 235 miles on their 5-day trip?

   b.   What would the car rental cost be <u>per day</u>?

   c. What would the car rental cost be <u>per mile</u>?

   d. Compare this company's <u>total cost</u> to the rental cost from question 7. Should you and your friends switch car rental companies? Why or why not?