**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Meteorologist Project questions**

\*\*\* When identifying a city, the \* symbol near the city’s name shows the location of the city\*\*\*

1. Using the Weather Front map, describe what weather conditions Nashville, Charlotte and Cleveland should have in common.
2. Using the Weather Front and Cloud Cover maps, what type of clouds are over Helena and Boston? Why?
3. Using the Weather Front and Cloud Cover maps, what type of clouds are over Kansas City? Why?
4. Using the Weather Front map, explain what is happening in Odessa.
5. Use the Current Temperature and Dew Point maps to fill in the following table. Then calculate the difference between each city’s Temperature and Dew Point to determine the city’s likelihood for precipitation.

|  |  |  |  |
| --- | --- | --- | --- |
| **City** | **Temp** | **Dew Point** | **difference** |
| Seattle |  |  |  |
| Helena |  |  |  |
| San Francisco |  |  |  |
| Los Angeles |  |  |  |
| Las Vegas |  |  |  |
| Salt Lake City |  |  |  |
| Phoenix |  |  |  |
| Denver |  |  |  |
| Kansas City |  |  |  |
| Fargo |  |  |  |
| Oklahoma City |  |  |  |
| Odessa |  |  |  |
| Dallas |  |  |  |
| New Orleans |  |  |  |
| Louisville |  |  |  |
| Cleveland |  |  |  |
| Nashville |  |  |  |
| Boston |  |  |  |
| Charlotte |  |  |  |
| Miami |  |  |  |

1. Use the table from the question above to determine the five cities with the highest chance for precipitation. Which two cities have the lowest chance for precipitation?
2. Use the Precipitation Forecast map to list the cities that might receive precipitation in the next 48 hours
3. Using the Precipitation Forecast map, determine which city is expected to receive the most precipitation and how much?
4. Using the Precipitation Forecast map, what does Denver need to prepare for?
5. Using the Weather Fronts map, Precipitation Forecast map, and the temp/dew point table (above) to explain why Fargo is forecasted to receive a moderate amount of precipitation in the next 48 hours, even though it has low humidity.
6. Using the Doppler Radar map, identify which city/s are experiencing precipitation at this moment and describe the precipitation.
7. Explain why the Precipitation Forecast map and the Doppler Radar map do not show the same information.
8. Using the Weather Fronts map, Cloud Cover map, and Current Winds map, describe what is happening just East of Denver and what is contributing to this wind pattern.
9. Use the Wind Speed and Direction map to determine wind conditions for the following cities.

(Use the key on the right side of the map)

|  |  |  |  |
| --- | --- | --- | --- |
| **City** | **Direction** | **Speed (knots)** | **Speed (miles per hour)** |
| Miami |  |  |  |
| Nashville |  |  |  |
| New Orleans |  |  |  |
| Fargo |  |  |  |
| Las Vegas |  |  |  |
| Phoenix |  |  |  |