Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_

**Chapter 12 Meteorology Review**

1. Complete the “Characteristics of Air Masses” table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Symbol** | **Name** | **Relative temp** | **Relative humidity** | **Example source location (that could affect U.S.weather)** |
| mP |  |  |  |  |
| cP |  |  |  |  |
| mT |  |  |  |  |
| cT |  |  |  |  |

1. What are the 2 characteristics we classify air masses by?
2. As a cT air mass that formed over Mexico moves north into the United States through New Mexico, Colorado, Nebraska, etc., what would be the major change in the air masses 2 main characteristics? **Explain why**.
3. Define “front”.
4. **Complete the “Characteristics of Fronts” table:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type** | **Relative Steepness** **of Front**  | **Type of Clouds** | **Strength & Length of Storms** | **Map Symbol** **(Color, shape)** | **Description of Front****Use pictures and/or words** **to describe what is happening** |
| Cold Front |  |  |  |  |  |
| Warm Front |  |  |  |  |  |
| Stationary Front | XXXXXXXXXXXXXX | XXXXXXXXXXXXXXXX |  |  |  |
| Occluded Front | XXXXXXXXXXXXXX | XXXXXXXXXXXXXXXX |  |  |  |

1. What type of front is shown in the diagram to the right? How do you know?
2. How many air masses are involved in
	1. Warm Front?
	2. Cold Front?
	3. Occluded Front?
3. Before the occluded front formed, what were 2 types of fronts were originally present? Explain what caused the occluded front to form.
4. Three of the fronts only involve the meeting of a warm and a cool air mass. What determines which of the three front types occurs? Explain.



**Use the diagram to the right to answer questions # 10-18:**

1. What type of front is near A in the diagram above?
2. What direction is the front near A moving?
3. What type of air mass is A likely to be under?
4. What type of air mass is D likely to be under?
5. Which location (A, B, C, D) is likely to have a steady rain, but not a thunderstorm? **Explain** your reasoning.
6. Which location (A, B, C, D) is likely to have sunny skies? **Explain** your reasoning.
7. Which location (A,B,C,D) is likely to have the highest temperature of 82F? **Explain** your reasoning.
8. Which location (A,B,C,D) is likely to have the lowest temperature of 45F? **Explain** your reasoning.
9. Explain how the weather is likely to change in City C based on conditions evident on the map. Reference things such as:
* **Relative temperature before/after**
* **Direction the wind comes from**
* **Strength and duration (time) of precipitation**
* **Types of clouds**
1. Complete the following table about pressure systems:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **System** | **Does Air Rise or Sink?** | **Usual weather**  | **Explain WHY that type of weather is found here** | **Direction of Rotation** |
| Low-Pressure |  |  |  |  |
| High-Pressure |  |  |  |  |



1. On the isobar diagram to the right, circle the area with the greatest wind speed. Then explain how you know the wind speed is greatest there.
2. Is the center of the isobar diagram a high or low pressure center? Put an H or an L, as appropriate in the center.
3. In the isobar diagram, based on the isobar values, draw an arrow showing the direction the wind is blowing.
4. Compare **and** contrast an **isotherm** and an **isobar**. (May use a Venn diagram or table if you want). Must include a similarity and for the difference describe both.