

Pressure Mapping Worksheet

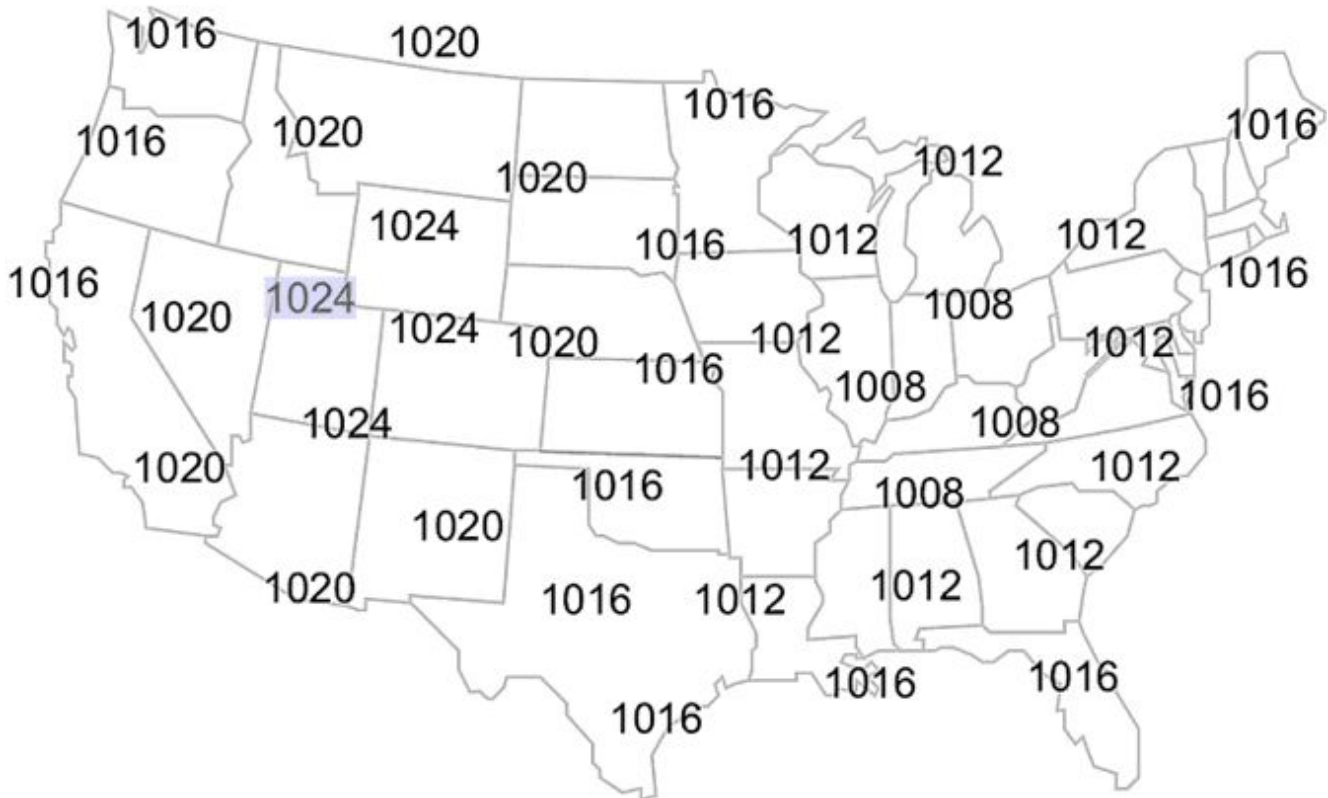
Name: _____

Hour: _____

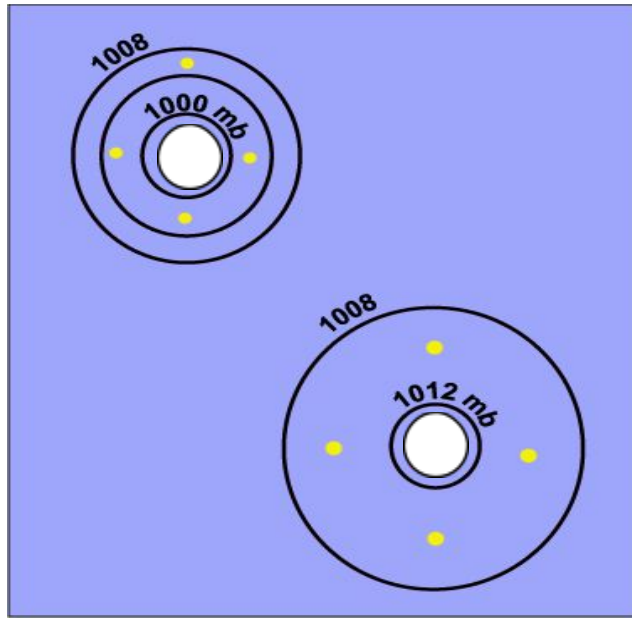
Date: _____

Directions: Follow the procedure below to complete the map then answer the questions pertaining to the map.

1. Draw the isobars on the map below. Start with the 1024 mb and add the 1020 mb, etc. *Note: isobars form sets of curves that do not cross each other*
2. Isobars can be used to identify "**high**s" and "**low**s." The pressure in a "high" is greater than the surrounding air. The pressure in a "low" is lower than the surrounding air.
 - a. Label the center of a high pressure area with a blue "H."
 - b. Label the center of a low pressure area with a red "L."
3. In general, what kind of weather is **Ohio** experiencing? _____
4. What pressure system is responsible for Ohio's weather? _____
5. In general what kind of weather is most likely occurring in the **state of Utah**?
6. What pressure system is responsible for Utah's weather? _____
7. In the northern hemisphere the wind blows clockwise around centers of high pressure. The wind blows counterclockwise around lows. It is the opposite in the southern hemisphere.
 - a. Draw arrows around the "H" on your map to indicate the wind direction.
 - b. Draw arrows around the "L" on your map to indicate the wind direction.
8. Imagine that you live in **El Paso, TX**. How would pressure measurements change as the High approaches and then passes to the east? (Would the barometer rise or fall?) _____
9. What direction are the pressure systems moving across the United States? _____



Directions: Use the following diagram to answer the questions that follow.



1. Examine the pressure systems on the diagram. Use an “L” and an “H” to indicate what kind of pressure is found in each.
2. What kind of weather would you expect in a:
 - a. High pressure system
 - b. Low pressure system
3. What is the name given to the lines that indicate air pressure around each cell?
4. Around which cell/pressure system are these lines close together?
5. What kind of pressure gradient (steep or weak) does this represent?
6. What kind of winds would you expect with this type of pressure gradient?
7. Around which cell/pressure system are the lines farther apart?
8. What kind of pressure gradient (steep or weak) does this represent?
9. What kind of winds would you expect with this type of pressure gradient?