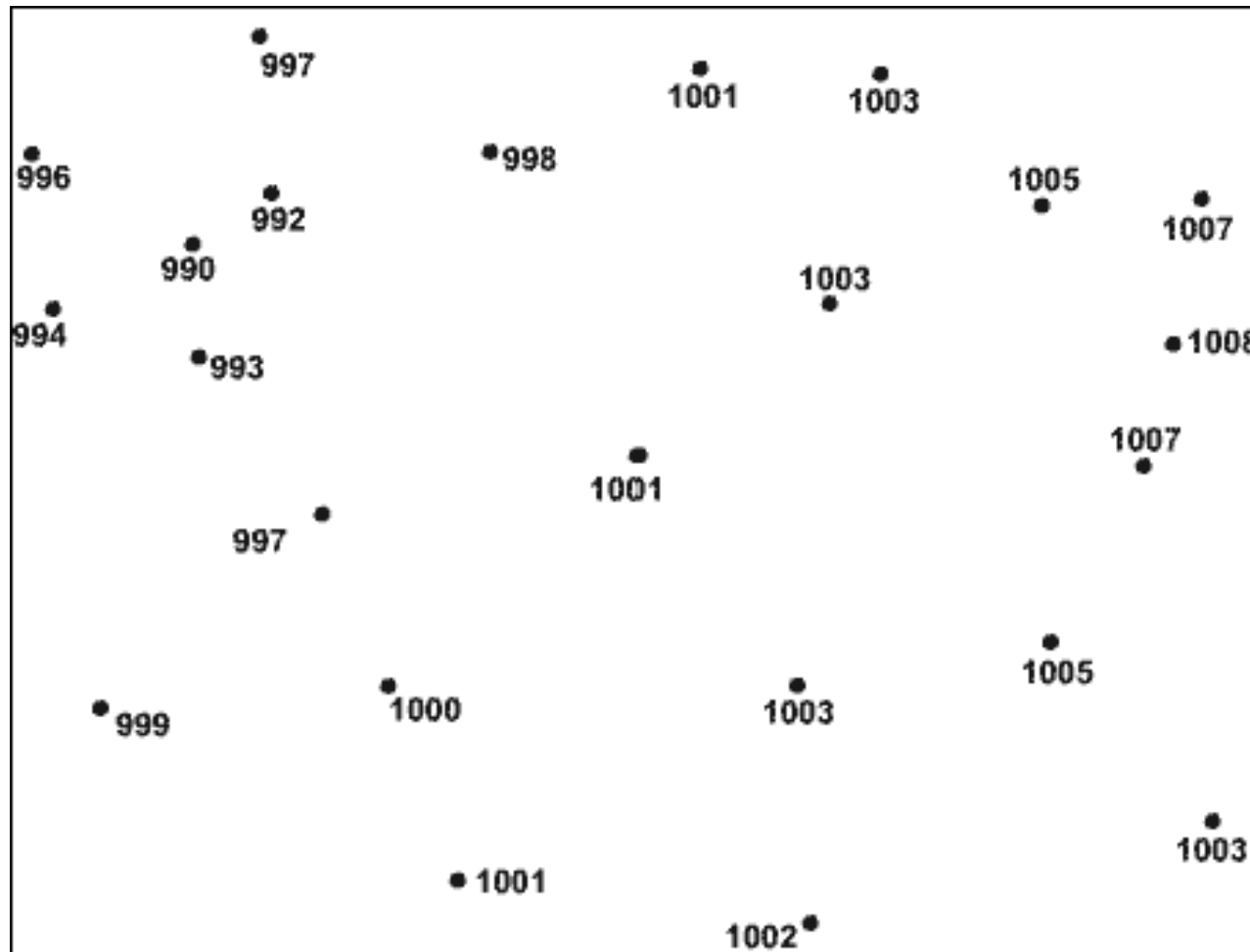
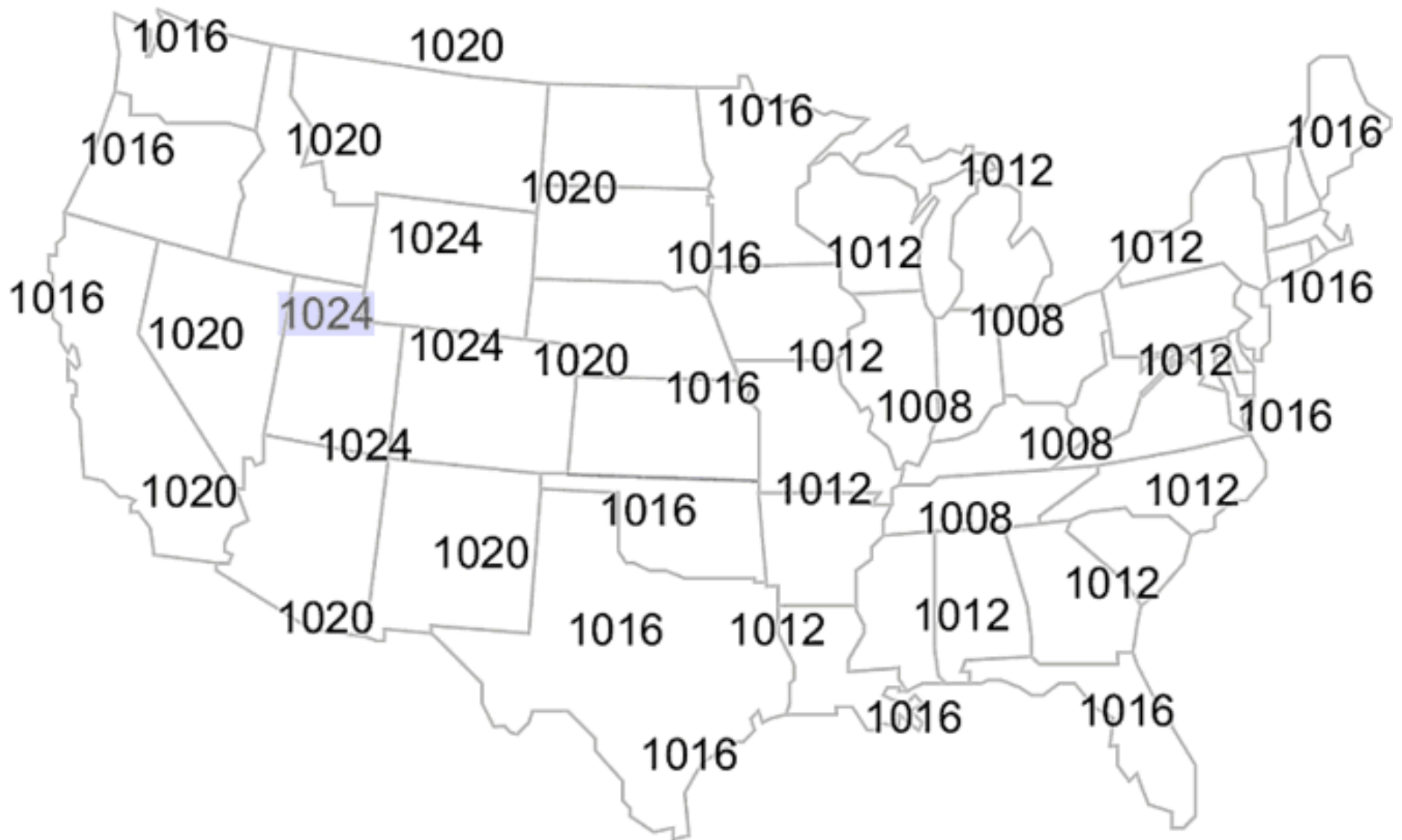


# Isopleths: contour lines (isobars)





## Objective

Using a black colored pencil, lightly draw lines connecting identical values of sea level pressure. Remember, these lines, called isobars, do not cross each other. Isobars are usually drawn for every four millibars, using 1000 millibars as the starting point. Therefore, these lines will have values of 1000, 1004, 1008, 1012, 1016, 1020, 1024, etc., or 996, 992, 988, 984, 980, etc.

## Procedure

Label each isobar with the appropriate value. Traditionally, only the last two digits are used for labels. For example, the label on the 1024 mb isobar would be 24. A 1008 mb isobar would be labeled 08. A 992 mb isobar will be labeled 92. These labels can be placed anywhere along the isobar but are typically placed around edges of the map at the end of each line. For closed isobars (lines that connect) a gap is placed in the isobar with the value inserted in the gap.

**Analysis** Isobars can be used to identify "Highs" and "Lows". The pressure in a high is *greater* than the surrounding air. The pressure in a low is *lower* than the surrounding air.

- Label the center of the high pressure area with a large blue "H".
- Label the center of the low pressure area with a large red "L".

High pressure regions are usually associated with dry weather because as the air sinks it warms and the moisture evaporates. Low pressure regions usually bring precipitation because when the air rises it cools and the water vapor condenses.

- Shade, in green, the state(s) you would expect to see rain or snow.
- Shade, in yellow, the state(s) you would expect to see clear skies.

In the northern hemisphere the wind blows clockwise around centers of high pressure. The wind blows counterclockwise around lows.

- Draw arrows around the "H" on your map to indicate the wind direction.
- Draw arrows around the "L" on your map to indicate the wind direction.