



## Contouring

### ***WHAT YOU SHOULD LEARN IN THIS EXERCISE:***

- The rules for contouring weather maps.
- How to contour a map.

### ***WHAT YOU NEED TO DO IN CLASS TODAY:***

#### **PART A: Logging on and getting started**

- A1. Log onto the computer.
- A2. Create a folder on the Desktop called “contouring.”

#### **PART B: Learn to Contour**

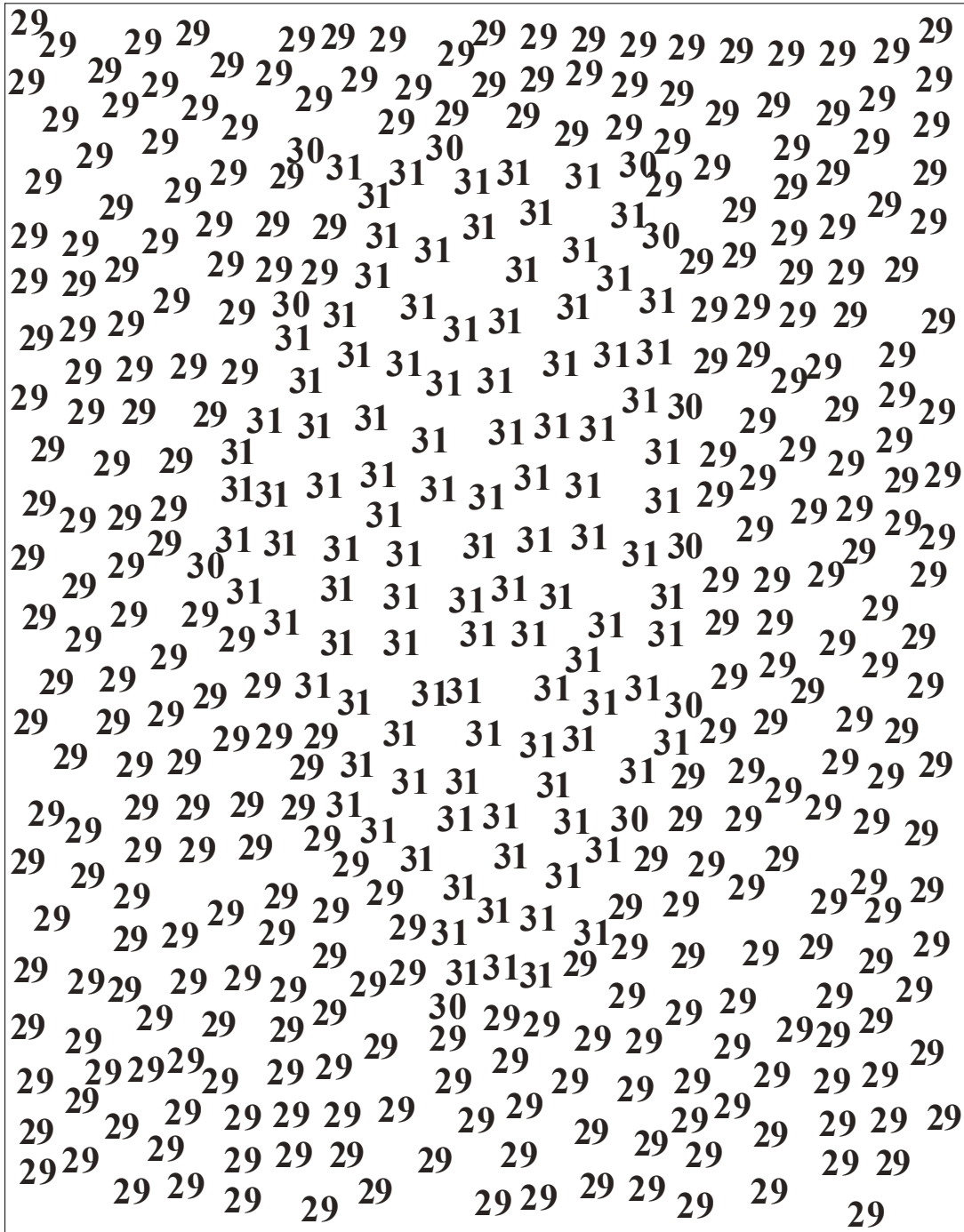
Your instructor will explain the process and rationale for contouring weather maps.

#### *Rules for Contouring*

- Contour lines are drawn to identify constant values of an atmospheric variable
- A contour is drawn through the station location only if the data for that station has the exact value of the contour; otherwise the contour is drawn between stations.
- Higher values are on one side of the contour and lower values on the other side of the contour.
- Contours are drawn at equal intervals.
  - Isotherms at 5°F or 10°F (or°C)
  - Isobars at 4 mb
- Contours never cross or touch each other.
- More than one contour of a given value may appear on a given map.
- All contour lines must be clearly labeled.
- Contours always form closed loops on world maps; this may not be the case for limited area maps.

- B1. The second page shows the numbers 29, 30 & 31. Draw contour for the number “30”.

Name: \_\_\_\_\_



B2. What does the figure depict?

## PART C: Contouring Temperature

C1. Launch the contouring application:

- Open the class web page on Blackboard
- Go to “External Links” and choose “Hands-On Meteorology Exercises”
- Under the Exercise button, choose the link to the “contouring” program

C2. Begin contouring:

- Use the first pull-down menu to choose Temperature
- Use the second pull-down menu to choose which value you want to contour. (HINT: It is usually easiest to find the highest or lowest value on the map and start from there.)
- If you want to erase a contour, choose that contour on the pull-down menu and click “Clear Current Contour”. *Once you clear a contour you cannot get it back!*
- If you want to erase all of the contours, choose “Clear All Contours.” *Once you clear all the contours you cannot get them back!*
- While holding down the left mouse button, draw the contour on the map. Continue this until all of the temperature contours have been drawn.
- You can check your answers to Part B and C by checking the “Show Solution” box. You cannot draw while the “Show Solution” box is checked.
- You can compare the solution to your drawing by sliding the Opacity bar. Keep in mind that contouring is somewhat subjective so your solution may not look exactly like the solution provided, but it should be pretty close. If there is a station model between your contour and the solution contour then something is wrong!

C3. *Save your contoured map in the desktop folder you created.*

You will need to uncheck “show solution” to save. (Note: if you are not asked where you want to save the file, try saving a second time.)

## PART D: Contouring Pressure

D1. If there is time in class, begin contouring pressure using the same methods as in Part C. Use the pull-down menu to select Pressure. Select the value you want to contour. While holding down the left mouse button, draw the contour on the map. Continue this until all of the pressure contours have been drawn.

D2. Save your map!