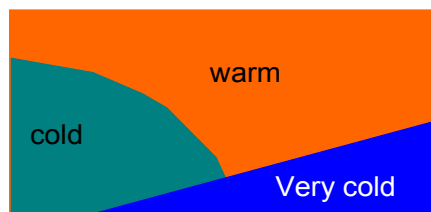


**Multiple choices:**

- \_\_\_\_\_ 1. Which of the following descriptions is correct?
- a) For the radar instrument, the longer the wave length is, the longer distance the instrument can detect.
  - b) The IR satellite can detect the depth of clouds.
  - c) The spatial resolution of radiosondes is about 50 km.
  - d) None of them
- \_\_\_\_\_ 2. Which of the following is a remote sensing instrument?
- a) Dropsonde,
  - b) Buoy,
  - c) Wind profiler,
  - d) None of them.

**Fill-in questions**

1. How frequently are the following data normally reported? Answer with (a) a few minutes, (b) 1 hour, (c) 3 hours, (d) 6 hours, (e) 12 hours, (f) 1 day, (g) 1 week, (h) not regular, (i) Never.
- \_\_\_\_\_ Sun synchronized polar orbiting satellite passing the same location over the tropic region
- \_\_\_\_\_ Geostationary satellite passing the north pole
- \_\_\_\_\_ METARS data at the airport weather stations
2. Which type of the occluded front is the following figure? \_\_\_\_\_

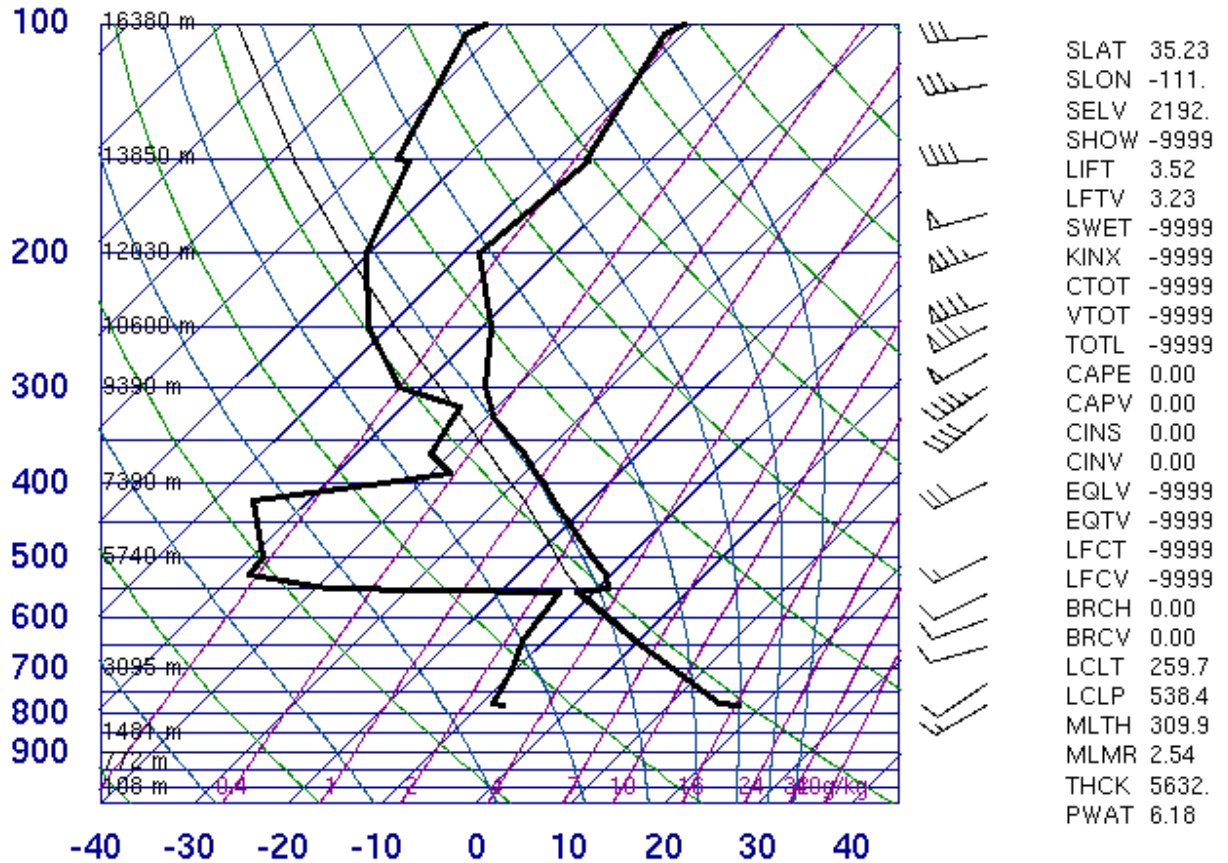


### III. Short essays:

1. Briefly describe the characteristics of a dry line and how it is usually formed over the Great Plains.
2. The following questions refer to the attached sounding in Figure 1.
  - a) What is the most likely type for the inversion around 550 mb? Explain your decision
  - b) Describe the stability (absolutely stable, absolutely unstable, conditionally unstable, etc.) of the layers between
    - 500 - 400 mb \_\_\_\_\_
    - 250 - 200 mb \_\_\_\_\_

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**Figure 1**



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University of Wyoming