

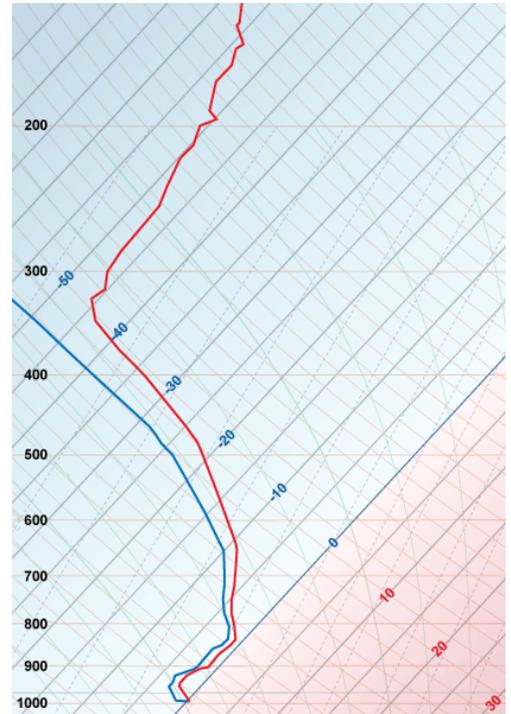


The Upper Air - Review Questions

1. All weather forecasts stem from our understanding of the surface weather patterns highs, lows and fronts as well as where they are moving. (TRUE, FALSE)
2. The force exerting on the atmosphere so that air can begin its upward motion is called...
 - a. pressure
 - b. gravity
 - c. centrifugal
 - d. physical
3. A _____ is a bubble of air that retains its shape and general characteristics as it rises or sinks in the atmosphere.
 - a. pocket
 - b. packet
 - c. package
 - d. parcel
4. If the temperature of the rising parcel becomes _____ the surrounding atmosphere the parcel will become _____ dense than the surrounding environment and gravity will slow, or even reverse, the rise.
 - a. higher / more
 - b. lower / more
 - c. lower / less
 - d. higher / less
5. In the atmosphere, if a parcel returns to its initial starting elevation then the atmosphere is considered to be/have _____.
 - a. neutral stability
 - b. conditionally unstable
 - c. absolutely unstable
 - d. absolutely stable
6. In the atmosphere, if a parcel continues to rise from its initial starting elevation then the atmosphere is considered to be/have _____.
 - a. neutral stability
 - b. conditionally unstable
 - c. absolutely unstable
 - d. absolutely stable
7. As it rises, the radiosonde directly provides...
 - a. pressure, temperature, and relative humidity data
 - b. pressure, temperature, and dew point data
 - c. stability values, dew point, and relative humidity data
 - d. wind shear, temperature, and absolute humidity data

8. When the position of a radiosonde is tracked so that its altitude can be determined it is called a rawinsonde observation. (TRUE, FALSE)
9. If found, radiosondes should be...
- tossed in the garbage as they are of no use anymore.
 - recycled at your nearest recycling facility and help save the Earth.
 - reconditioned and used again saving the taxpayer some money.
 - returned to your local National Weather Service office for a small finder's fee.
10. Worldwide, most radiosonde observations are taken at...
- 00z and 12z weekly
 - 6 a.m. and 6 p.m. daily
 - 12 a.m. and 12 p.m. daily
 - 00z and 12z daily
11. While the radiosonde provides relative humidity during its flight, on the Skew-T diagram the value plotted is the _____ temperature.
- dew point
 - wet bulb
 - wet bulb depression
 - dew bulb
12. The tropopause is the boundary between the troposphere and stratosphere and is indicated on a Skew-T diagram by a large and deep increase in air temperature at the top of the sounding. (TRUE, FALSE)
13. As indicated on a Skew-T plot of a radiosonde observation, there may be several places where the air temperature remains the same or *increases* with height. These particular places are called temperature _____.
- inclusions
 - inversions
 - reversions
 - subversions
14. Temperatures need to be below freezing throughout the entire radiosonde sounding for freezing rain to develop. (TRUE, FALSE)

15. If there was precipitation falling with this type of sounding, the main precipitation type expected would be...
- snow
 - freezing rain
 - sleet
 - freezing drizzle



16. Stability indices are predictive in nature. (TRUE, FALSE)

17. In reference to severe weather, CAPE stands for...

- Convective Available Potential Energy
- Cumulonimbus Anvil Position Entropy
- Collective Available Positive Energy
- Convective Accessible Positive Energy

18. A CAPE greater than 4,000 means the atmosphere is extremely stable. (TRUE, FALSE)

19. When the temperature of a parcel of air becomes lower than the surrounding air the parcel's upward motion is _____.

- improved
- enhanced
- inhibited
- accelerated

20. Positive CAPE in the atmosphere at any particular level means that level is unstable. (TRUE, FALSE)