

Quiz Problem on Using skew- T Diagram

ATMOS 5300

30 Sep 2022

Your name:

(a) For a parcel with initial properties of $T = 15^\circ\text{C}$, $T_d = 5^\circ\text{C}$, and $p = 950$ mb, use your skew- T diagram to find its temperature, dew point temperature, and water vapor mixing ratio at 420 mb.

(b) For the same parcel, find its temperature, dew point temperature, and water vapor mixing ratio at 670 mb if the parcel descends *reversibly* from 420 mb.

(b) For the same parcel, find its temperature, dew point temperature, and water vapor mixing ratio at 670 mb if the parcel descends *pseudo-adiabatically* from 420 mb.