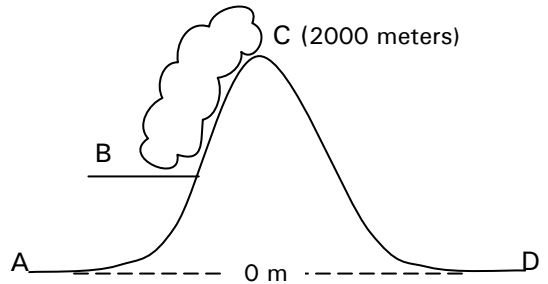


1. Fill in the missing values in the table below. Assume that the air at each weather station is forced to rise.

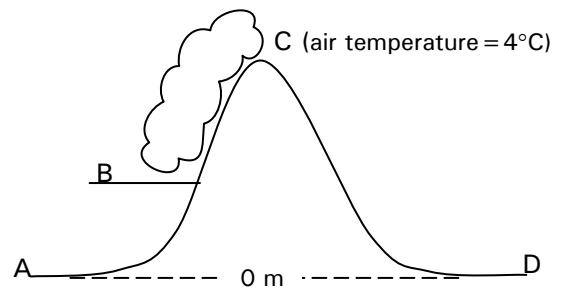
Weather Conditions and Rising Air Parcels at Five Weather Stations

Weather Station	A	B	C	D	E
Air temperature at ground level (°C)	10		25		30
Water vapor capacity at ground level (g/kg)		15		26	
Relative Humidity at ground level (%)					50
Water vapor content of the air (g/kg)	2	10			
Dew point temperature (°C)			10	12	
Condensation level (m)					
Temperature at 2000 m (°C)					

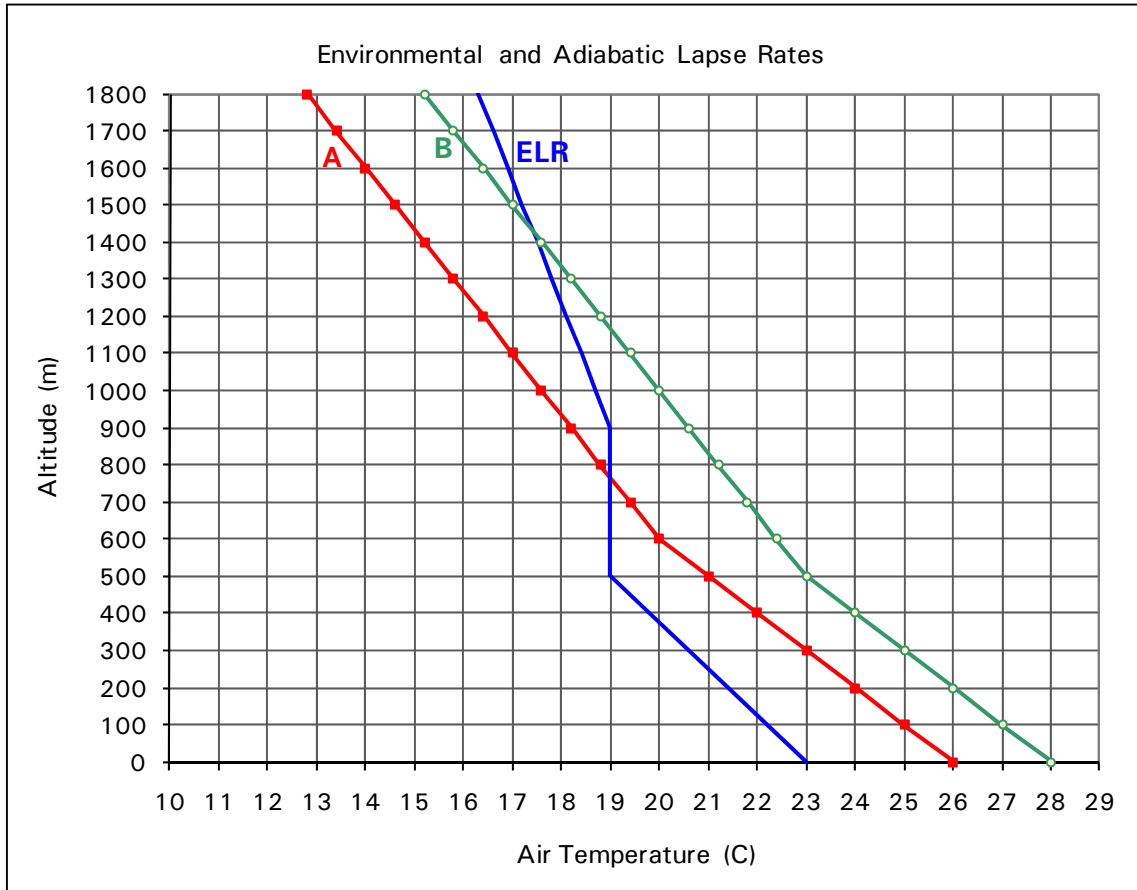
2. The air temperature at A = 12°C and the water vapor content = 6g/kg
- What is the temperature at B? _____
 - What is the elevation at B? _____
 - What is the temperature at C? _____
 - What is the temperature at D? _____



3. The air temperature at A = 21°C and the relative humidity = 50%
- What is the temperature at B? _____
 - What is the elevation at B? _____
 - What is the elevation at C? _____
 - What is the temperature at D? _____



- Does the relative humidity increase, decrease, or stay the same as air rises from A to B?
- Does the relative humidity increase, decrease, or stay the same as air rises from B to C?
- Does the relative humidity increase, decrease, or stay the same as air sinks from C to D?



4. Graph questions

- a. What is the dew point temperature for parcel A? _____
- b. What is the dew point temperature for parcel B? _____
- c. What is the condensation level for parcel A? _____
- d. What is the condensation level for parcel B? _____
- e. What is the stability level for parcel A? _____
- f. What is the stability level for parcel B? _____
- g. At what range of altitudes is parcel A unstable? _____
- h. At what range of altitudes is parcel B unstable? _____
- i. Where is there an isothermal layer? _____
- j. What is the elevation of the cloud base for parcel A? _____
- k. What is the elevation of the cloud base for parcel B? _____

- l. What is the elevation of the cloud top for parcel A? _____
- m. What is the elevation of the cloud top for parcel B? _____
- n. Which parcel has greater vertical cloud development, A or B? Why?
- o. At 500 meters, is the air inside parcel A more, less or the same density as the air inside parcel B? Why?
- p. At 1000 meters, is the air *inside* parcel A more, less or the same density as the air *surrounding* parcel A? Why?
- q. At 1000 meters, is the air *inside* parcel B more, less or the same density as the air *surrounding* parcel B? Why?
- q. Is the air inside parcel B at 200 meters more, less or the same density as the air inside parcel B at 1500 meters? Why?

Saturation Curve

