

ADIABATIC TEMPERATURE CHANGE

| Resource Information |
|---|
| Dry adiabatic lapse rate = $10^{\circ}\text{C}/1000\text{m}$ |
| Moist adiabatic lapse rate = $6^{\circ}\text{C}/1000\text{m}$ |
| Dry dew point lapse rate = $2^{\circ}\text{C}/1000\text{m}$ |
| Moist dew point lapse rate = $6^{\circ}\text{C}/1000\text{m}$ |

Wind is forcing air to rise up the mountain below before sinking on the other side. The initial air and dew point temperatures are shown at the base of the mountain.

- Fill in each missing air and dew point temperature.
- At what elevation will a cloud likely form? _____
- How does the amount of water vapor on the leeward side of the mountain compare with the amount of water vapor on the windward side of the mountain? _____

