

Exercise Lecture 1

1. Why pressure decreases with increasing height above the ground
2. Why the atmosphere does not collapse on the ground and does not escape to the space?
3. Where the hydrostatic equation is used for?
4. What are the types of pressure? And which one we use in thermodynamics?
5. Explain why airplane cabins are pressurized.
6. If the thickness of the 1000 – 500 hPa layer is 5400 gpm, what is the layer average temperature in kelvin?
7. What is the geopotential and why it is used?
8. How to reduce the pressure at the station to the pressure at MSL?
Write down a formula.