February 1st Class – Thermo class 2

Pre-Class Reading:

Sections 2-8 through Sections 2-13. (**THIS MUST BE DONE**)

Discussion questions for class:

(1) What is the first and second law of thermodynamics?
(2) What is the difference between C_V and C_P? Why would there be a difference?
(3) What is enthalpy?
(4) What is heat?
(5) What is an adiabatic process? How might you do an adiabatic process experimentally?
(6) What is entropy?

In Class Problems:

Problem 2.11. Convert the statement "I am cold, please turn on the heat," to the precise language of physics.

Problem 2.15 Use $TV^{\gamma-1} = constant$ and the ideal gas pressure equation of state to show that in a quasistatic adiabatic process P and V are related as: $PV^{\gamma} = constant$ and $TP^{(1-\gamma)/\gamma}$ = constant.