Chapter 11: Thermodynamics

PRINT Name _____ Period _____

ALWAYS SHOW THE METHOD-- Hup, Two, Three, Four.

1. State the First and Second Laws of Thermodynamics and give an Example of each.
2. Write the Equations for the Melting of Ice and the Evaporation of Water and show how Maximum Randomness (Disorder) and Minimum Energy influence the Equilibriums.
3. Compare the Absolute Temperature Scale (Kelvin) and the Celsius (Centigrade) Scale. Write the Conversion Formula for C to K.
4. Explain how Charles' Law affects Volume and Pressure of a gas.
5. Tell about Maxwell's Demon and what is wrong with this thought experiment.
6. Show how Newton's Law of Conduction and Stefan's Law of Radiation explain the Coffee-Cream problem.
7. Tell about Boltzmann's Statistics.
8. Define Adiabatic Temperature change, and tell how to use it to make a cloud in a 4-Liter jug.
9. How can we Freeze a liquid by boiling it?
10. Explain how a Refrigerator cools the inside and warms the outside.
11. Explain how Regelation of Water makes it possible to skate on ice.
12. Why can't we operate a car by having an electric motor turn a generator to make the power for the motor which would run the car?
13. Tell why the Efficiency of a gasoline engines so low.