

Your Assignment for Friday.

It is Monday. I didn't have the heart to pass this out on Friday because it was M-day and enjoying school spirit is part of being a student on campus. Everything remains the same though – make sure you can check off each one of these boxes by Wednesday.

- o I have done all my problems. They are neat, with sketches, and properly labeled in my spiral bound notebook with my name on the cover.
- o I have thoroughly read and thoroughly understood all of the assigned reading.
- o I know and can recite the basic definitions of energy, heat, work, system, open system, closed system, property, state, process, cycle, etc.
- o I know the difference between a dimension and unit.
- o I know about g_c in the USCS system
- o I know the difference between a fundamental dimension and derived dimension.
- o I know all equations must have dimensions and units (unless they are dimensionless) and that equations must be dimensionally and unity homogenous.
- o I know the difference between Fahrenheit and Celsius temperature scales.
- o I know what the State Postulate is and why it is so important.
- o I know and understand the forms of energy stored and transferred.
- o I know that energy is always conserved.
- o I know how to calculate potential energy and kinetic energy.
- o I know about energy conversion efficiencies.
- o I have read about energy and the environment, and understand the greenhouse gas effect.
- o I know what a pure substance is and how it behaves thermodynamically.
- o I know about the p v T surface, the p V and p T diagrams and can draw each diagram and label the regions.
- o I know about the compressed liquid region, the saturated (mixture) region, and the superheated gas region.
- o I can obtain all of the thermodynamic properties of a pure substance given two independent thermodynamic properties using the tables in the back of the book. I can do this quickly because I have practiced over and over again, just like playing the violin.
- o I know about the ideal gas equation of state and can use it in a variety of forms.
- o I know about the compressibility chart and why it is applied to the ideal gas equation of state.
- o I know there are many equations of state which APPROXIMATE real gas behavior.
- o I know Dr. Abata is really a nice guy even though he seems like a #@%\$& and he is trying very hard to make sure I understand thermodynamics and help me pass this course with a decent grade.