Homework Nine

Physics & Mathematics of Sustainable Energy

College of the Atlantic

Due Friday, May 27, 2016

Please print out this cover sheet and attach it to your problem solutions. Completed assignments should go in my mailbox or be handed in during class. Please don't hand them to me other times, as I might end up losing them and that would make us both sad.

Your Name: _____

Please list all the students you collaborated with on this assignment:

_____ _____

_____ _____

_____ _____

Did you get help from Aura or Morgan?

Did you consult any resources other than our textbook or class notes? (If yes, please include citations in your solutions.)

Were you able to get enough help so you could complete this assignment to your satisfaction?

Approximately how many hours did you spend on this assignment?

Anything else of note about this assignment? (It was too hard, too easy, lots of fun, too repetitious...)

The work I am turning in for this assignment is an accurate reflection of my own understanding of the material.

Signature: _____ Date: _____

Assignment is on the next page....

Homework Nine

Physics & Mathematics of Sustainable Energy

Due Friday, May 27, 2016

1. Problem 14.1 from textbook.
2. Problem 14.3 from textbook.
3. Problem 15.1 from textbook.
4. Problem 15.2 from textbook.
5. Problem 15.3 from textbook.
6. Go to `https://flowcharts.llnl.gov/commodities/energy`.
   (a) Choose the flow chart for the US in 2015. Express the total US energy consumption and the breakdowns sector (Residential, Commercial, Industrial, Transportation) in units of kWh per person per day. Note that one Quad = 10^{15} BTU.
   (b) Do the same thing but for Mexico in 2011. Note that 1 PJ = 10^{15} J. (If you want, do this for some other country instead of Mexico.)