Conversion-Palooza

The purpose of this program is to gain experience setting up a C program, reading data from the keyboard, and writing data to the screen (in other words… I/O).

You are to write a complete C program that:

1. Writes your name, seat number, class section, instructor's initials, the date, and assignment number to the screen.

2. Prompts the user for the following quantities:
   a. An area in stremmas
   b. A distance in light years
   c. An amount of energy in calories
   d. A flowrate in gallons/hour

3. Converts the:
   a. Stremmas to oxgangs
   b. Light years to parsecs
   c. Calories to teraelectronvolts
   d. Gallons/hour to cubic meters/day

4. Displays the results of the conversions in the Linux window.

5. Writes to the screen that the program has completed.

Submit a copy of your properly documented program and sample output from running the program on Tuesday 01/20/09. You might want to experiment with the output formatting, (e.g. "%10.2f") and you might also want to use the %e formatting for the calorie to teraelectronvolts conversion.

HINT 1: An easy way to collect your output is to “redirect” the output of your program from the screen to a file. For example:

```
ewa02.out > ewa02.txt
```

Then, you could print both `ewa02.cpp` and `ewa02.txt`. Keep in mind that if you do this, there will be no output to the screen when you run your program with redirection. You will have to know what and when to enter it without seeing any prompts.

HINT 2: This assignment is a good opportunity to practice using `#define`. It’s very handy when creating conversion factors.

For example, to convert gallons/hour to cubic meters/day you might use something like:

```
#define GPH_TO_CMPD  0.090849883
```

Name__________________________ Instr.________ Room_____ Seat_____ Hour______