CS 159 – HW #01
5 Points Possible
Due: January 23, 2011 at 11:00pm.

Problem: Given as integers (three in all) an angle in degrees, minutes, and seconds display the value converted into radians.

Example Execution #1:

```
Enter number of degrees: 180
Enter number of minutes: 0
Enter number of seconds: 0

Data Entered: 180° 0' 0"
Radians Conversion: 3.1416
```

Example Execution #2:

```
Enter number of degrees: 359
Enter number of minutes: 59
Enter number of seconds: 59

Data Entered: 359° 59' 59"
Radians Conversion: 6.2832
```

Example Execution #3:

```
Enter number of degrees: 85
Enter number of minutes: 55
Enter number of seconds: 14

Data Entered: 85° 55' 14"
Radians Conversion: 1.4996
```

Example Execution #4:

```
Enter number of degrees: 198
Enter number of minutes: 7
Enter number of seconds: 47

Data Entered: 198° 7' 47"
Radians Conversion: 3.4580
```

Example Execution #5:

```
Enter number of degrees: 342
Enter number of minutes: 35
Enter number of seconds: 0

Data Entered: 342° 35' 0"
Radians Conversion: 5.9792
```

Additional Very Important Requirements and Reminders:

- Accept the input of three integers and produce output formatted **exactly** as seen in the example executions above.
  - You may assume the user will always enter meaningful integer data when testing your program.
  - Do not add any "bonus" features not demonstrated in the example executions provided.
- **DO NOT** use any material found outside of the first THREE chapters of the C text.
  - You should make use of the value of pi defined in the `math.h` library. No function from `math.h` is permissible for use in this program.
  - Problem #38, which you will solve as a part of lab #1, demonstrates how characters and integers are related. The integer values of the symbols seen in the examples above are 176, 39, and 34.
  - Make good use of symbolic/defined constants rather than literal constants in your program.
- A program **MUST** compile to be considered for partial credit. The submission script will reject the submission of any file that does not compile and is therefore untestable.

See the next page for some very important additional requirements and notes regarding course standards!

Academic Integrity Reminder:

- Please review the official policies and consequences of the course as they relate to academic integrity. The assignment you submit should be your own original work. You should be consulting only course staff regarding your specific algorithm for assistance. Collaboration is not permitted on individual homework assignments.

Course Programming and Documentation Standards Reminders:

- Place a single space between all operators and operands.
- Comment all variables to the right of each declaration. Declare only one variable per line.
  - **Note that the program in the text uses a single line comment to indicate the start of the local declaration and executable statement sections of the `main` function.** At no point during the semester should these two sections of a function be permitted to overlap. You may consider adopting this habit of commenting the start of each section (see program 2-7 on page 71-72 of the C programming text as an example) to help you avoid this mistake.
- Select meaningful identifiers (names) for all variables and symbolic/defined constants in your program.
- Indent all code found within the `main` function **exactly** two spaces.
- Do not single (or double) space the entire program, use blank lines when appropriate.

When you submit... only the last attempt of a submission is kept for grading. All other submissions are over-written and cannot be recovered. You may make multiple submissions but only the last attempt is retained and graded.

- Verify in the e-mail sent to you by the course that you have submitted the correct file, to the correct assignment (`hw01`), and to the correct lab section. Forwarding confirmation e-mails from Purdue to external e-mail services may result in the mail being undelivered or end up being identified as spam.
- Leave time prior to the due date to seek assistance should you experience difficulties completing or submitting this assignment.
- All attempts to submit via a method other than through the sage server as set up during the first week of the semester will be denied consideration. Leave time to seek assistance should you struggle to use any of the tools of the course.

Assignment deadlines... are firm and the electronic submission will disable promptly as advertised. We can only grade what you submit as expected prior to the assignment deadline.

All course programming and documentation standards are in effect for this and each assignment this semester. Please review this document in your course notes packet.
