

CS 135 - Spring 2018

Dr. Williams

Assignment 4

Grade formula: $SCE * (2 * CS + 2 * VS + PD)$

Maximum raw score: $4 * (2 * 4 + 2 * 4 + 4) = 80$

Maximum scaled score: 40

Write a program that:

- Prompts a user to enter their name
 - You may assume only a single word will be entered
- Prompts the user to enter an integer that represents a degree
- Converts and outputs the number of radians
 - Radians = degrees x pi / 180
- Prompts the user to enter a floating-point value representing radians
- Converts and outputs the number of degrees (truncate this by explicit typecasting)
 - Degrees = radians x 180 / pi

Use a constant for the value of pi and let that value be 3.141593.

When testing your program, your output should match my example provided below. My input is in **bold**.

```
[williams@bobby 04]$ g++ -std=c++11 -Wall -Werror -Wpedantic -Wextra a4.cpp
[williams@bobby 04]$ ./a.out
Enter your name: John
John, enter degrees: 37
John, 37 degrees = 0.645772 radians.
John, enter radians: 1.54
John, 1.54 radians = 88 degrees.
[williams@bobby 04]$ ./a.out
Enter your name: John
John, enter degrees: 0
John, 0 degrees = 0 radians.
John, enter radians: 0
John, 0 radians = 0 degrees.
[williams@bobby 04]$
```

- In addition to the prior protocols, this program (and all remaining programs in this course) must compile on bobby with the following compiler flags: `-std=c++11 -Wall -Werror -Wextra -Wpedantic` as shown above