

Homework #2

Course: COP 3223

Semester: Fall 2015

Due Date: September 23, 2015

Credit Value: 5% of final grade

Basic input and output

Use Code::Blocks to write and execute the following simple program:

- 1) Write a program that requests from the user the name and circumference of a planet, and calculates the diameter of the planet at the Equator. State the following as the result:

“The diameter of <name of planet> at the Equator is <the computed value> miles”

Use `#define` to set the value of Pi.

- 2) Add code to the above program to convert the distance between Orlando and Paris, France from miles to kilometers. Print out the same result to the screen by stating so in your own words. Use the `#define` directive also to reflect the distance between Orlando and Paris in miles as well as the conversion factor between miles and kilometers.
- 3) Expand the above program to calculate how long it would take a jetliner to fly from Orlando to Paris assuming a ground speed of 565 miles per hour. Output the result to the screen in your own words.
- 4) Add code to the above to calculate how much earlier an identical aircraft (i.e., same ground speed) would have to depart from Orlando to reach Rome at the same exact time that the first jetliner reaches Paris. Be sure to let the computer make the calculations!

Notes

- Find the distance between Paris and Orlando (in miles) and between Orlando and Rome (in miles) from the Internet. Cite the source of the information as comments in the same or previous line where it is first used.
- Be sure to comment the code appropriately and extensively.
- Submit your program source code through the Webcourses homework submission. Please name the file as HW2-<last name> and put your full name as the first comment line.