

Assignment #7

Radius, Diameter, Circumference and Surface Area

Develop the MASM Assembly source code required to solve the following problem.

Problem

Develop a MASM Assembly program that prompts the user for a signed floating-point value that represents the diameter of a circle. Using this, calculate and display the following:

- The circle's radius
- The circle's circumference
- The circle's surface area

Assignment Guidelines

- 1) Your solution must print out your Name and R Number as the first line of output. This will be considered part of your program's "Correctness".
 - a. Keep in mind the example input/output below does not show this line.
- 2) All user input should be read from the keyboard.
- 3) All output should be printed to the screen in a clean and legible manner.
- 4) Your solution should only accept valid (positive) input; incorrect input should trigger an appropriate error message and prompt for the input again.
- 5) You may not make use of any assembly instructions or concepts we have not yet covered in class.
- 6) You may not make use of conditional control flow directives.

Solution Layout

Your MASM assembly source code should have the following elements in this order:

- 1) Your name, the date, and the assignment commented along the top.
- 2) A comment giving a brief description of the problem.
- 3) A comment laying out the algorithm/pseudocode/methodology you used to solve the problem.
- 4) Your commented MASM source code.

What to turn in to BlackBoard

A 'zip' file named "assignment_7.zip" that contains the following:

- Your .asm source code file
- A copy of the assembled executable