

Lab 9

Box Surface Area and Volume

Objective:

To write a program with:

- a function (or functions) to do necessary calculations that will **return** the answer

Assignment:

Write a program that will prompt the user for the dimensions of a box (length, width and height), convert all of the units to inches, and output the surface area and volume of the box.

The program must contain a function that does the unit conversion and returns the converted value. There should not be a separate function for each dimension! The conversion function should not care if the dimension it is converting is the length, width or height, only the units that are to be converted.

Sample Run:

```
Welcome to my box calculator!

Length
Enter the measurement:  3
      units I. inches  F. feet  C. centimeters  M. meters  F

Width
Enter the measurement:  40
      units I. inches  F. feet  C. centimeters  M. meters  C

Height
Enter the measurement:  1.25
      units I. inches  F. feet  C. centimeters  M. meters  M

The box's exterior surface area is 6227.17 square inches.
The box's volume is 27900.1 cubic inches.
```