

ENGINEERING H192
DAILY ASSIGNMENT B03

A. After starting your Linux virtual machine (VM), log in to your Linux account using your Windows username and password. Perform the following tasks and print the **Linux** commands for each exactly as you typed them (correct case, blank spaces where needed, etc.). Use <CR> or <ENTER> to indicate pressing the <ENTER> key.

1. Create a second Linux terminal window.

>

2. Display your directory files in a Linux window.

>

3. Copy file the **welcome.dat** from **~engh192/students** to your directory.

>

4. Change the name of **welcome.dat** to **welcome.txt**.

>

5. Display the contents of **welcome.txt** in a Linux window.

>

6. Print the contents of **welcome.txt** on one of the lab's printers. Submit the printout with this sheet.

>

7. Erase **welcome.txt** from your directory.

>

B. Create a file named **b03.cpp** by invoking one of the available editors in a Linux window (e.g. **>emacs b03.cpp** or **>vi b03.cpp**). Type in the program shown on the following sheet exactly as shown (replacing “Brutus Buckeye”, etc. with the correct information). Save the file, then compile and link it by typing:

g++ -o b03.out b03.cpp

If an error occurs during compilation, return to the editor window, correct the error, and re-save the file. When the program compiles without an error message, run it by typing **b03.out** in the Linux window where you compiled it. When the program is running correctly, and producing correct results, print a copy of **b03.cpp** by typing **lp b03.cpp** in the Linux window and submit it with this sheet. Be sure to logout of the Linux system when you are finished (if necessary, logout from the PC, too).

Name _____ **Instructor** _____ **Seat** _____ **Hour** _____

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```
/* Name: Brutus Buckeye */
/* Date: MM/DD/YYYY */
/* Assignment: B03 */
/* Seat: XX Instructor: XYZ Hour: HH:30 */

#include <stdio.h>
#include <stdlib.h>
#include <math.h>

int main ( )
{
    /* Declare variables, initializing the variable pi to a known value */

    float pi=3.14159265359, diam, height, volume ;

    /* Tell the user what the program does. Prompt for and read in the diameter and
    height */

    printf ("\n\nThis program computes the volume of a cylinder.");
    printf ("\nEnter the diameter and height separated by a space.\n");
    printf ("\nDiameter and height in inches > ");

    /* Read two floating point values from the keyboard and store
    the values in diam and height. scanf will wait until <ENTER> has
    been pressed. */

    scanf ("%f%f", &diam, &height);

    /* Display the values for pi, the diameter and the height */
    printf ("pi = %f diam = %f height = %f\n ", pi, diam, height) ;

    /* Calculate the volume of the cylinder. Store the value in the
    variable volume. If you wanted, you could use the equation:
    volume = 1.0/4.0 * pi * pow (diam, 2.0) * height; instead of the one
    given. Try it once you get your program working. */

    volume = 1.0/4.0 * pi * diam * diam * height;

    /* Display the cylinder diameter and height in inches and the cylinder volume in
    cubic inches. */

    printf ("\nThe volume of the cylinder with a diameter ");
    printf ("\nof %6.2f inches and height of %6.2f inches is", diam, height);
    printf ("\n%10.2f cubic inches.\n", volume);
}
```

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