

CS 112 - Assignment 2a

You will be asked to create several different programs. These programs are short and will take no more than a few lines of code. Submit a separate file to the Dropbox for each program (Assignment 2a-1.py, Assignment 2a-2.py, Assignment 2a-3.py). You will need to pass off the assignments with the TA or tutor during their office hours (their information is in the CS 112 Course Information section of the Table of Contents), or the instructor in class. Follow the formatting guide which is also found in the CS 112 Course Information section.

Read the instructions carefully. Make sure your output matches the example run.

Program 1 (Assignment 2a-1.py)

Objective: output

Write a program that prints to the screen the following:

Python is great!
I am glad I am in this class!
Programming is fun!

Example Run

```
===== RESTART: D:/Users/Jeffrey/MyPythonScripts/ Assignment 2a-1-JLL.py =====  
Python is great!  
I am glad I am in this class!  
Programming is fun!  
>>>
```

Program 2 (Assignment 2a-2.py)

Objective: Math operations, and output

Write a program that outputs the area of a square with a width of 10ft. Also, output the area of a rectangle that has a height of 20in. And a width of 5in.

Formula: $\text{area} = \text{width} * \text{height}$

Note: make sure you display inches or feet after the area number. And use the exponent operator to calculate the area of a square.

Example Run

```
===== RESTART: D:/Users/Jeffrey/MyPythonScripts/Assignment 2a-2-JLL.py =====  
The area of a square with a width of 10 feet is: 100 feet.  
The area of a rectangle with a height of 20 inches and a width of 5 inches is: 100 inches.  
>>>
```

Program 3 (Assignment 2a-3.py)

Objective: Use floating point values, variables, input, and output

Write a program that reads in the radius and length of a cylinder and computes the area of the base circle and volume of the cylinder using the following formulas:

area of base circle = $\text{radius}^2 * 3.14159$

cylinder volume = area * length

Example Run

```
===== RESTART: D:\Users\Jeffrey\MyPythonScripts\Assignment 2a-3-JLL.py =====  
This program will calculate the area and volume of a cylinder based on values input from  
the user.  
  
Please enter the radius of the cylinder: 5.5  
Please enter the length of the cylinder: 12  
  
The area of the base circle of the cylinder is: 95.0330975  
The volume of the cylinder is: 1140.39717  
>>>
```