

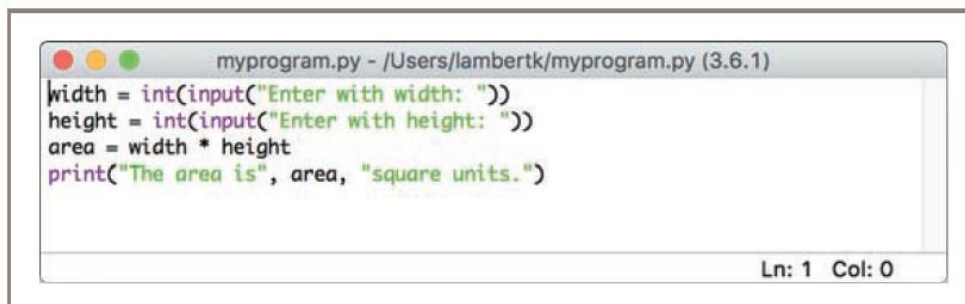


## LM Software Workshop 1 (34153, 34182, 34168, 36990)

### Lab Exercise Sheet

#### Week 1-Chap 1 (Intro to Python Programming)

1. Open a Python shell, enter the following expressions, and observe the results:
  - a. 8
  - b.  $8 * 2$
  - c.  $8 * * 2$
  - d.  $8/12$
  - e.  $8 // 12$
  - f.  $8/0$
2. Write a Python program that prints (displays) your name, address, and telephone number.
3. Evaluate the following code at a shell prompt: `print ("Your name is", name)`. Then assign name an appropriate value and evaluate the statement again.
4. Open an IDLE window and enter the program from Figure 1-7 that computes the area of a rectangle. Load the program into the shell by pressing the F5 key and correct any errors that occur. Test the program with different inputs by running it at least three times.



```
myprogram.py - /Users/lambertk/myprogram.py (3.6.1)
width = int(input("Enter with width: "))
height = int(input("Enter with height: "))
area = width * height
print("The area is", area, "square units.")
Ln: 1 Col: 0
```

5. Modify the program of Project 4 to compute the area of a triangle. Issue the appropriate prompts for the triangle's base and height and change the names of the variables appropriately. Then, use the formula  $.5 * \text{base} * \text{height}$  to compute the area. Test the program from an IDLE window.
6. Write and test a program that computes the area of a circle. This program should request a number representing a radius as input from the user. It should use the formula  $3.14 * \text{radius} ** 2$  to compute the area and then output This result suitably labelled.
7. Write and test a program that accepts the user's name (as text) and age (as a number) as input. The program should output a sentence containing the user's name and age.

e.g. Enter your name: Ali  
Enter your age: 28  
Ali is 28 years old.

8. Enter an input statement using the input function at the shell prompt. When the prompt asks you for input, enter a number. Then, attempt to add 1 to that number, observe the results, and explain what happened.
9. Enter an input statement using the input function at the shell prompt. When the prompt asks you for input, enter your first name, observe the results, and explain what happened.
10. Enter the expression `help()` at the shell prompt. Follow the instructions to browse the topics and modules.