Using a text editor, create a Python script named tryme4.py . Write a function in this file called nine\_lines that uses three\_lines to print nine blank lines. Now add a function named clear\_screen that prints out twenty-five blank lines. The last line of your program should be a *call* to clear\_screen.  
  
**Answer:**

def new\_line():

print

def three\_lines():

new\_line()

new\_line()

new\_line()

def nine\_lines():

three\_lines()

three\_lines()

three\_lines()

def clear\_screen():

nine\_lines()

nine\_lines()

three\_lines()

three\_lines()

new\_line()

clear\_screen()

Move the last line of tryme4.py to the top of the program, so the *function call* to clear\_screen appears before the *function definition*. Run the program and record what error message you get. Can you state a rule about *function definitions* and *function calls* which describes where they can appear relative to each other in a program?

**Answer:**  
It is impossible to call a function before it is defined in the program. So the program will not recognize the syntax in the code.  
"There's an error in your program. Invalid Syntax."  
  
3. Starting with a working version of tryme4.py , move the definition of new\_line after the definition of three\_lines. Record what happens when you run this program. Now move the definition of new\_line below a call to three\_lines(). Explain how this is an example of the rule you stated in the previous exercise.  
  
**Answer:**  
After 'new\_line' is moved after the definition of 'three\_lines' and program is run, this message appears:  
"There's an error in your program. Invalid Syntax."  
  
After the definition of 'new\_line' is moved below a call to 'three\_lines' and program is run, this message appears:  
"There's an error in your program: unindent does not match any outer indentation level."  
  
4. Fill in the *body* of the *function definition* for cat\_n\_times so that it will print the string, s, n times:

def cat\_n\_times(s, n):

<fill in your code here>

Save this function in a script named import\_test.py. Now at a unix prompt, make sure you are in the same directory where the import\_test.py is located ( ls should show import\_test.py). Start a Python shell and try the following:

>>> from import\_test import \*

>>> cat\_n\_times('Spam', 7)

SpamSpamSpamSpamSpamSpamSpam

If all is well, your session should work the same as this one. Experiment with other calls to cat\_n\_times until you feel comfortable with how it works.  
  
**Answer:**

def cat\_n\_times(a,b):

    print a \* b

>>>

harneyharneyharney

>>>

Using the IDLE development environment, create a Python script named tryme4.py . Write a function in this file called nine\_lines that uses a function called three\_lines to print nine blank lines. Now add a function named clear\_screen that prints out twenty-five blank lines. The last line of your program should call the function to clear\_screen .

The  function three\_lines and new\_line are defined below so that you can see a nested function call.

def new\_line():  
print()

def three\_lines():  
new\_line()  
new\_line()  
new\_line()

Submit your Python script file in the posting of your assignment. Your Python script should be either a .txt file or a .py file. You must execute your script and copy and paste the output produced into a document that you will submit along with your python script. It is very helpful if you print a placeholder between the printing of 9 lines and the printing of 25 lines. It will make your output easier to read for the assessor. A placeholder can be a comment such as “now printing 9 lines” or “now printing 25 lines”.

ANSWER:

def new\_line():  
print()

def three\_lines():  
new\_line()  
new\_line()  
new\_line()

def nine\_lines():  
three\_lines()  
three\_lines()  
three\_lines()

print(“First Line.”)  
print(“now running nine blank lines…”)  
nine\_lines()  
print(“Second Line.”)

def clear\_section():  
nine\_lines()  
nine\_lines()  
three\_lines()  
three\_lines()  
new\_line()

print(“Line 1”)  
print(“now printing 25 black lines…”)  
clear\_section()  
print(“Line 26”)

**What will the output of this program be when it is executed?**

def test\_function( length, width, height):  
print (“the area of the box is ”, length\*width\*height)  
return length\*width\*height

l = 12.5  
w = 5  
h = 2  
test\_function(l, w, h)

print (“The area of the box is ”, length\*width\*height)

A NameError because a variable not defined

**What will the output of the following code be?**

def recursive( depth ):  
depth+=1  
while (depth < 5):  
ret = recursive(depth)  
return depth

ret = recursive( 0 )  
print (“the recursive depth is ”, ret)

None

**What does the import statement in the following script do?**

**import StringIO**

**output = StringIO.StringIO()  
output.write(‘First line.\n’)  
output.close()**

It includes a Python module called StringIO into the script

**The following Python script will generate an error when executed.  What is the cause of the error?**

def function2(param):  
print (param, param)  
print (cat)

def function1(part1, part2):  
cat = part1 + part2  
function2(cat)

chant1 = “See You ”  
chant2 = “See Me ”  
function1(chant1, chant2)

**What does function subroutine do?**

def subroutine( n ):  
while n > 0:  
print (n,)  
n -= 1

Counts from n down to 1 and displays each number

**The following code is an example of what principle?**

bruce = 5  
print (bruce,)  
bruce = 7  
print (bruce)

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