Python Activity 13: Value Returning Functions

Learning Objectives
Students will be able to:

Content:
- Explain the meaning and purpose of a value returning function

Process:
- Write code that includes function definitions and function calls

Prior Knowledge
- Python concepts from Activities (1, 3, 12)

FYI: So far, the functions you have created print the results within the function. They do not send back any information to the original calling code. Functions that do not send back information are known as none-returning functions. Functions often send back or return a result and are known as value returning functions.

1. Enter and execute the code below. Carefully examine the code.

```python
import math

def getQuadratic(a, b):
    square = a**2 + b**2
    squareRoot = math.sqrt(square)
    return squareRoot

def main():
    sqRoot = getQuadratic(3, 4)
    print('The square root of the sum of the squares of 3 and 4 is:', sqRoot)

#### Call to main() ####
main()
```

a. Circle the line of code from the program that includes the function call to getQuadratic.

b. In a None-returning function, the function call is on a line by itself. Why is this function call placed on the right-hand-side of an assignment statement?

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c. What are the arguments used for the function call?

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d. What does the program do?

________________________________________________________________________
e. Circle the function call.

f. Is the function a **None-returning function** or a **value returning function**? _______________

g. Why is the import statement needed in this program?

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**Application Questions: Use the Python Interpreter to check your work**

1. Carefully examine and then complete the following Python program.
   - The program prompts the user to enter their name.
   - It also generates a random number between 1 and 5, with the following code:

```
import random
random.randint(1,5)
```
   - The program prints the user’s name as many times as the random number indicates

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