

Name: _____

1. Function Call Mystery

Consider the following Python functions.

```
def greet(name):  
    print("Hello, " + name + "!")  
    return name + "!"  
  
def cheer(word):  
    message = greet(word)  
    print("Go " + message)  
    return message  
  
def celebrate(person):  
    greeting = cheer(person)  
    print("Hooray!")  
    return greeting
```

Suppose we had the following statements. For each part, indicate *everything printed to the console, in order*. If multiple lines are printed, write each line on a separate line.

```
name = "JamCoder"  
  
name = greet(name)  
  
# Output:  
# _____  
# _____  
# _____  
  
cheer(name)  
  
# Output:  
# _____  
# _____  
# _____  
  
celebrate("Python")  
  
# Output:  
# _____  
# _____  
# _____
```

2. Replace If Less

Write a function called `replace_if_less` that takes a list of integers, a threshold value, and a replacement value. The function should return a *new* list where every element strictly less than the threshold is replaced with the replacement value. All other elements should remain unchanged.

Examples:

- `replace_if_less([5, 1, 8, 2], 3, 0)` returns `[5, 0, 8, 0]`
- `replace_if_less([10, 20, 30], 15, -1)` returns `[-1, 20, 30]`
- `replace_if_less([1, 2, 3], 0, 9)` returns `[1, 2, 3]`
- `replace_if_less([], 5, 100)` returns `[]`

```
def replace_if_less(numbers, threshold, replacement):  
  
    result = _____  
  
    for _____ in _____:  
  
        if _____ < _____:  
            _____  
        else:  
            _____  
  
    return _____
```

3. Character Counter

Write a function called `count_character` that takes a list of strings and a target character, and returns the total number of times that character appears across all strings in the list. If the list is empty or no matches are found, return 0. Ignore any None values in the list.

Examples:

- `count_character(["apple", "banana", "pear"], "a")` returns 5
- `count_character(["aaa", "", "a"], "a")` returns 4
- `count_character([], "a")` returns 0

```
def count_character(words, target):  
  
    total = _____  
  
    for _____ in _____:  
  
        for _____ in _____:  
  
            if _____:  
  
                _____ += _____  
  
    return _____
```


5. Digit Range

Write a function called `digit_range` that accepts an integer as a parameter and returns the range of values of its digits. The range is defined as 1 more than the difference between the largest and smallest digit.

For example, the call to `digit_range(68437)` should return 6 because the largest digit is 8 and the smallest is 3, so $8 - 3 + 1 = 6$. If the number contains only one digit, return 1.

Part I: Pseudocode

Before writing your Python code, describe the steps your function should follow using *pseudocode*.

--

Part II: Python Code

Now, implement your solution in Python.

[illegible]