CMP167 – Quiz #04

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Results: ____________________

Name: ____________________

Class: ____________________

Date: ____________________

1. The part of a program that uses a function is called the:

   a. user
   b. caller
   c. callee
   d. statement

2. If a function returns a value, it should generally be called from:

   a. An expression
   b. A different function
   c. `main`
   d. A different program

3. The literals for type bool are:

   a. `T,F`
   b. `True, False`
   c. `true, false`
   d. `1, 0`

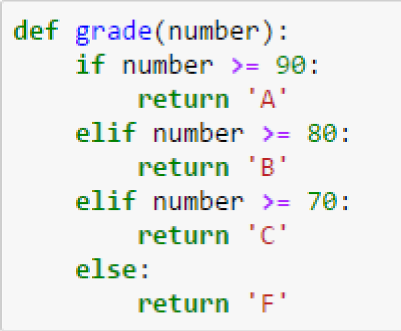
4. A structure in which one decision leads to another set of decisions, which leads to another set of decisions, etc. is called a:

   a. Boss structure
   b. web
   c. tree
   d. trap

5. What is the difference between a class and an object?

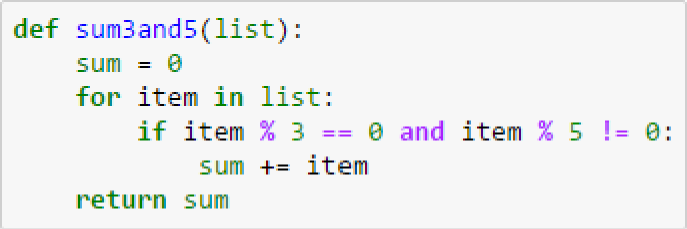
   A class is the blueprint for an object.

6. Write a function that accepts a quiz score as an integer parameter and returns a letter grade depending on what the grade is (90-100: A, 80-89: B, 70-79: C, 69 and below: F).



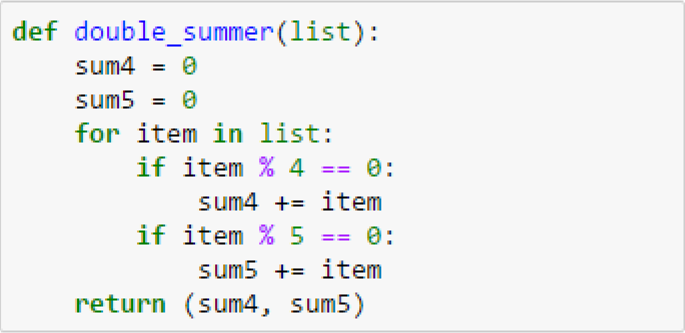
```python
def grade(number):
    if number >= 90:
        return 'A'
    elif number >= 80:
        return 'B'
    elif number >= 70:
        return 'C'
    else:
        return 'F'
```

7. Write a function that accepts a list of integers as a parameter and returns the sum of each of the numbers in that list that is divisible by 3 but not 5.



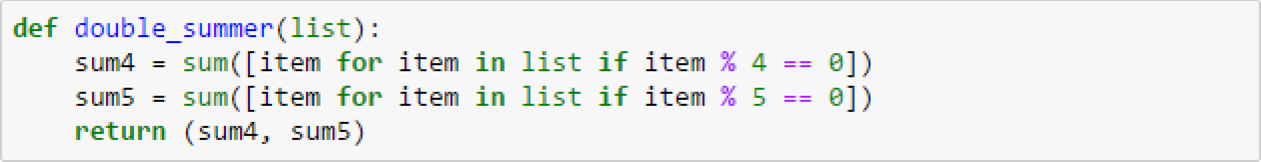
```python
def sum3and5(list):
    sum = 0
    for item in list:
        if item % 3 == 0 and item % 5 != 0:
            sum += item
    return sum
```

Extra Credit: In python a function can have multiple return values by the use of a tuple in the form: `return (<return value 1>, <return value 2>).` Ex. Returning the numbers 1 and 3 is accomplished by: `return (1, 3).` Write a program that accepts a list of integers as a parameter and returns two values, the sum of all numbers divisible by 4 and the sum of all numbers divisible by 5. Use the reverse side of this page for your answer.



```python
def double_summer(list):
    sum4 = 0
    sum5 = 0
    for item in list:
        if item % 4 == 0:
            sum4 += item
        if item % 5 == 0:
            sum5 += item
    return (sum4, sum5)
```

Alternatively, you may significantly decrease the line of the code using *list comprehensions*. If you are interested, you may read more about them at https://docs.python.org/2/tutorial/datastructures.html#list-comprehensions



```python
def double_summer(list):
    sum4 = sum([item for item in list if item % 4 == 0])
    sum5 = sum([item for item in list if item % 5 == 0])
    return (sum4, sum5)
```