

CSC148 Worksheet 17 Solution

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Question 1

- We need to implement the base case for this function.

The docstring tells us the function does nothing if `<obj>` is an int.

Using this fact, we can write that

```
1  def add_one(obj: Union[int, List]) -> None:
2      """Add one to every number stored in <obj>. Do nothing if <obj>
   > is an int.
3      If <obj> is a list, *mutate* it to change the numbers stored.
4      >>> lst0 = 1
5      >>> add_one(lst0)
6      >>> lst0
7      1
8      >>> lst1 = []
9      >>> add_one(lst1)
10     >>> lst1
11     []
12     >>> lst2 = [1, [2, 3], [[[5]]]]
13     >>> add_one(lst2)
14     >>> lst2
15     [2, [3, 4], [[[6]]]]
16     """
17
18     if isinstance(obj, int):
19         return obj
20
```

Listing 1: worksheet_17_q1_solution.py

Question 2

Question 3