Computer Science 134 – Spring 2020

Name:

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Review Questions - Complete: Prior to watching Friday 5/15 lecture

Let's consider some of the finer points of pythonic programming:

1. Convert the following if/else into a one-line return statement:

```
if mylist is not None and len(mylist) > 24:
    return True
else:
    return False
```

2. Convert the following loop into a one-line list comprehension:

```
newList = []
for v in mylist:
    newList.append(v + 5)
```

3. Convert the following loop into a one-line list comprehension:

```
filterList = []
  for v in mylist:
    if v > 7:
        filterList.append(v)
```

4. Fix this function, which should generate a stream of lowercase letters in a given String, mystr:

```
def findLowers(mystr):
    currentIndex = 0
    while True:
        if mystr[currentIndex].islower():
            return mystr[currentIndex]
            currentIndex += 1
```

5. Write a line of code that prints the length of LinkedList, 11:

```
11 = LinkedList()
11.extend([0,1,2,3,4,5])
```

- 6. sum(self) is a method within the LinkedList class. Write a line of code that uses this method to print the LinkedList, 11's, sum:
- 7. \_\_contains\_\_(self) is a special method in Python. Write a line of code that *implicitly* calls this method, to see if our LinkedList, 11, contains the value 24:
- 8. Recall our Tree class. Write a method for Tree objects that counts the number of leaf nodes in the tree: