

INSTRUCTIONS

- You have 5 minutes to complete this quiz.
- The exam is closed book, closed notes, closed computer, closed calculator.
- Mark your answers **on the exam itself**. We will *not* grade answers written on scratch paper.
- For multiple choice questions, fill in each option or choice completely.
 - ☐ means mark **all options** that apply
 - ☐ means mark a **single choice**

Last name	
First name	
Student ID number	
CalCentral email (_@berkeley.edu)	
Discussion Section	____ _
<i>All the work on this exam is my own.</i> (please sign)	

0. **Your thoughts?** If Cal's mascot was a turkey, what would be its name?

1. Tree Time

Fill in the square to the left of each line if *removing the line* would help pass the doctests. In the space to the right, briefly describe why each line should be removed. *Remove as many lines as possible.*

Recall: The special method `__iter__` is called by the built-in `iter()` and should return an iterator.

`IterableTree.__iter__` is a generator that yields the root value of the tree and then each value in its branches.

```
class Tree:
    def __init__(self, label, branches=()):
        self.label = label
        self.branches = list(branches)

    def is_leaf(self):
        return not self.branches
```

```
☒ class IterableTree:

☐ class IterableTree(Tree):

☒     def __init__(self, label, branches=()):

☒         Tree.__init__(label, branches)

☒         Tree.__init__(self, label, branches)

    def __iter__(self):
        """Yield the entries of this tree.

        >>> T = IterableTree
        >>> t = T('A', [T(2, [T('C'),
        ...             T(4)]),
        ...             T('E', [T(6)])])
        >>> list(t)
        ['A', 2, 'C', 4, 'E', 6]
        """

☐         yield self.label

☒         yield label

        for branch in self.branches:

☒             branch = iter(branch)

☐             for label in branch:

☒                 for label in branch():

☒                     yield self.label

☐                     yield label

☒         yield self.label

☒         yield label
```