CS 61A Structure and Interpretation of Computer Programs

Summer 2016

Quiz 5 Solutions

INSTRUCTIONS

- You have 25 minutes to complete this quiz.
- The exam is closed book, closed notes, closed computer, closed calculator.
- Mark your answers **on the quiz itself**. We will *not* grade answers written on scratch paper.

Last name	
First name	
Student ID number	
Instructional account (`cs61a-_`)	
BearFacts email (`_@berkeley.edu`)	
TA	
Name of the person to your left	
Name of the person to your right	
All the work on this exam is my own. **(please sign)**	

1. (5 points) All Summer Sixteen

(a) (5 pt) Fill in the environment diagram that results from executing the code below until the entire program is finished, an error occurs, or all frames are filled. *You may not need to use all of the spaces or frames.*
A complete answer will:

- Add all missing names and parent annotations to all frames.
- Add all missing values created or referenced during execution.
- Show the return value for each local frame.

```
1  def sum(lst):
2      total = 0
3      def help(you):
4          nonlocal total
5          total += lst[you]
6          lst[you] = total - lst[you]
7      me = 0
8      while me < len(lst):
9          help(me)
10         me += 1
11     return total
12
13 a = sum([6, 1])
```