

**INSTRUCTIONS**

- You have 10 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> <b>(please sign)</b>	

0. **Your thoughts?** How are you feeling this week?

### 1. Yes, No, but Sometimes Maybe?

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

*You must list all bindings in the order they first appear in the frame.*

<pre>def yes(no):     yes = 'no'     return no  no = 'no'  def no(no):     return no + yes(no)  yes = yes(yes)(no&gt;('ok'))</pre>	<p>Global frame</p> <table border="1"> <tr> <td>yes</td> <td> </td> <td>_____</td> </tr> <tr> <td>no</td> <td> </td> <td>_____</td> </tr> </table>	yes		_____	no		_____	<p>func yes(no) [parent=Global]</p>			
yes		_____									
no		_____									
	<p>f1: _____ [parent= _____]</p> <table border="1"> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>Return Value</td> <td> </td> <td>_____</td> </tr> </table>	_____		_____	_____		_____	Return Value		_____	<p>func no(no) [parent=Global]</p>
_____		_____									
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Return Value		_____									
	<p>f2: _____ [parent= _____]</p> <table border="1"> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>Return Value</td> <td> </td> <td>_____</td> </tr> </table>	_____		_____	_____		_____	Return Value		_____	
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	<p>f3: _____ [parent= _____]</p> <table border="1"> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>Return Value</td> <td> </td> <td>_____</td> </tr> </table>	_____		_____	_____		_____	Return Value		_____	
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	<p>f4: _____ [parent= _____]</p> <table border="1"> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>_____</td> <td> </td> <td>_____</td> </tr> <tr> <td>Return Value</td> <td> </td> <td>_____</td> </tr> </table>	_____		_____	_____		_____	Return Value		_____	
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