

Name: _____

CS21 Lab 4 Written Part – Due: Sunday, 4 October before 11:59 PM
Upload directly to Gradescope.

```
1 def mystery(x, y, number):
2     print("in mystery")
3
4     # see Question 3
5     if (x > number):
6         number = y
7
8     # Draw stack at this point in execution
9     return number
10
11 def main():
12     print("in main")
13
14     a = 4
15     b = 1
16     val = 2
17
18     answer = mystery(a, b, val)
19
20     # see Question 2
21     print("answer: %d." % answer)
22     print("val: %d" % val)
23
24
25 main()
```

DRAW STACK HERE

1. To the right of the program code (in the area beneath DRAW STACK HERE), draw the stack as it appears when the program reaches line 8.
2. At line 20 (marked # see Question 2), what variables are currently in scope? That is, what variables can you refer to in `main` on line 20 without getting a runtime error.
3. At line 4 (marked # see Question 3), what variables are currently in scope? That is, what variables can you refer to in `mystery` on line 4 without getting a runtime error.
4. Below, give the output that would be produced by running the whole program to completion: