

Name: \_\_\_\_\_

## CS21 Lab 4 Written Part – Due: Monday, Oct. 28, beginning of class

```
1 def main():
2     print("in main")
3
4     x = 4
5     y = 8
6     num = 6
7
8     answer = mystery(x, y, num)
9
10    # see Question 2
11    print("answer: " + str(answer))
12    print("y: " + str(y))
13
14
15 def mystery(s, t, number):
16     print("in mystery")
17
18     # see Question 3
19     if (t > s):
20         number = number - s
21
22     t = t + 1
23     print("t: " + str(t))
24     # Draw stack at this point in execution
25     return number
26
27 main()
```

DRAW STACK HERE

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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 24.
2. At line 1 (marked # see Question 2), what variables are currently in scope? That is, what variables can you refer to in `main` on line 10 without getting a runtime error.
3. At line 18 (marked # see Question 3), what variables are currently in scope? That is, what variables can you refer to in `mystery` on line 18 without getting a runtime error.
4. Below, give the output that would be produced by running the whole program to completion: