

## **Problem Set 6, Problems 0, 1, and 2**

### **Problem 0: Reading and response**

*Put your response to the reading below.*

*IMPORTANT: Your entire response should fit on this page.*

1. *In light of the reading, make an argument for how computational models help and/or hurt society. You are welcome to stake out a middle position, or to take a strong stand on either side. Just make sure that your argument is informed by the reading*

*Computational models help society when it comes to earthquakes and natural disasters. One could say it is detrimental because we may miss one or two misconviencies without it, however, we're better off having it than not, it doesn't hurt to have more protection.*

2. *Based on the information in the articles, how can computer scientists and others who develop computational models ensure that their models are correct? Is it even possible to do so?*

*Computational models are based on our history and how often something occurs. For climate change, it's mostly based on greenhouse gasses and temperatures around the world. However, this information is more often correct than not correct, it is not definite. It's not possible to predict the future but with computational models, you can get pretty close. There's some outliers that you may never get to connect.*

### Problem 1: Tracing function calls

*IMPORTANT: This heading should appear at the very top of the second page.*

global variables

a	b	c
2	3	8
	6	

Return b = foo's a

bar's local variables

a	c	b
6	12	10
		17

return c = global b

foo's local variables

a	b	c
8	2	3
12	2	6
17		

return a = bar's b

mystery's local variables

c	a
6	10
12	15
12	7

output (the lines printed by the program)

2 3 8

'Foo', 12, 2, 6

'Bar', 6, 10, 12

'foo', 17, 2, 6

## Problem 2: Understanding loops

*IMPORTANT: This heading should appear at the very top of the third page.*

2-1)

i	values[i]	values[i-1]	count
-	-	-	0
0	8	6	1
1	5	8	1
2	3	5	1
3	7	3	2
4	1	7	2
5	6	1	3

return value =

2-2)

a	b	value printed
12	4	12 4
8	3	5
5	2	3
3	1	2
2	0	2