

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

### Problem 0: Reading and response

*Put your response to the reading below.*

I think the most interesting idea was the man giving Chat GPT to his daughter as a tutor. I think if I were a child I would be absolutely enamored with chat gpt and the idea that it can literally talk to you about anything. The idea of an AI teacher has always been off putting in my head, but I think as a supplement for children who would like to study further it would be very interesting. I would also worry about AI radicalizing kids or something but I'm sure that totally would not be an issue and no one with malicious intent would take advantage of that. Overall, even though it is very scary for many reasons I think this specific application is very cool and interesting.

### Problem 1: Tracing function calls

global variables

a	b
5	2
5	10

bar's local variables

a	b
5	
5	3
6	
6	4
2	
2	0

foo's local variables

a	b	c
2	5	
2	5	
2	5	7
10	5	7

output (the lines printed by the program)

```
5 2
bar 5 3
5 2
bar 6 4
bar 2 0
5 10
```

## Problem 2: Thinking recursively

2-1)

mystery(1, 7)

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a = 1

b = 7

myst\_rest = mystery(2, 5) = 8

return 15

mystery(2, 5)

-----

a = 2

b = 5

myst\_rest = mystery(3, 3) = 3

return 8

mystery(3, 3)

-----

a = 3

b = 3

return 3

2-2) 15

2-3) 4 Stack Frames