Problem 1

Please answer the following questions about yourself:

- What is your class year?
- What are you interested in academically?
- What are you hoping to get out of CS16 and CS16 section?
- What are you looking to get out of the mentorship?
- What else do you want us to know about you?

Problem 2

Read the following slides and use the call stack example to answer the question at the end.
Recursion Simulation

Calculate 3 factorial!

def factorial(n):
    if n == 1:
        return 1
    else:
        return n * factorial(n-1)

Recursion Simulation

- n != 1, so we return n\*factorial(n-1) which includes a call to factorial(2).

def factorial(n):
    if n == 1:
        return 1
    else:
        return n * factorial(n-1)

Recursion Simulation

- n is still != 1, so we return n\*factorial(n-1) again. In this case, there’s a call to factorial(1).

def factorial(n):
    if n == 1:
        return 1
    else:
        return n * factorial(n-1)
Now that you have read the slides, go through the following code for a function `fib(n)` that finds the n-th number of the Fibonacci Sequence. Draw out the call stack for `fib(4)`. Follow the format used in the factorial example from the slides.

```python
def fib(n):
    if n == 0:
        return 1
    else:
        return n*factorial(n-1)
```
return 0
if n == 1:
    return 1
return fib(n-1) + fib(n-2)