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# CS 61A      Structure and Interpretation of Computer Programs

## Spring 2k17

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MIDTERM 1 IS IN 8 DAYS

**1. (5 points) In Shallow Trouble**

Draw the environment diagram that results from executing the code below (until the entire program is finished, or an error occurs).

```
def reverse(lst):
    if len(lst) <= 1:
        return lst
    return reverse(lst[1:]) + [lst[0]]

l = [1, [2, 3], 4]
rev = reverse(l)
```

**2. (5 points) One Three Five One Two**

What does the following code print?

```
lst = [None for _ in range(10)]
for i in range(10):
    lst[i] = lambda: i

for func in lst:
    print(func())
```