LAB 2 COMMENTS
Time Spent: 8.6 mean, 3.4 stdev, 8.5 median
Hardness: 4 mean, 0.9 stdev, 4 median
- "The program seemed incredibly easy at first, but as we tested more and more cases, it proved to be much more complex, but still not too bad overall."
- "The hardest part was dealing with the different undefined cases."
- "I like the course so far; it's challenging without being overwhelming, and full of satisfying "ah ha!" moments."
- Love giving feedback but find the form confusing. [Tried to address by not embedding the form in moodle.]
- "The written portion was much more challenging then the programing."

- "Interpreting what the questions were really asking. ... The course is great so far. I enjoy the concise perspective taken to solving problems, and my understanding of language composition has improved."
- "I think that getting started was the hardest part. I was having a bit of trouble figuring out what exactly I was supposed to do and what was done for me; though, I'm not sure what would have made a difference"
- "Getting started on the interpreter was difficult; once I figured out how to get a few operations working correctly the rest became easy, but the initial learning curve was steep. ... I am really enjoying this look at the fundamental building blocks of programming languages and analysis of structural rules."
- "also getting the "first foot in the door" so to say with the programming. it took me a bit to get started but whence i got plus working the rest came rather fast."

Announcements
- Auto tests for Lab 3 Up
- Office Hours Today 11-12
(revised from 1-2) - see me for appointments
Questions

substitute when to use

call in step function

\[
\begin{align*}
&('const \ a = 4; \\
& \text{const } a = 3; a+a) \\
\Rightarrow \\
& ('const \ a = 3; a+a) [4/a] \\
\Rightarrow \\
& ('const \ a = 3) a+a)
\end{align*}
\]
\begin{align*}
\text{const } a &= 3; \ a + a \\
\text{const } b &= 3; \ b + b \\
\text{free } (\text{const } q = a + \frac{1}{a}) \left[ \frac{4}{a} \right]
\end{align*}
Dynamic Scoping

\[
e \begin{cases}
\text{const } x = 1; \\
\text{const } g = \text{func } (y) \& \text{ return } x) \\
\text{const } h = \text{func } (x) \& \text{ return } g(2)) \\
h(3) \end{cases}
\]

(1) Static Scoping evaluates to ?
(2) Dyn Scoping evaluates to ?
(3) Give derivation of the above expr e to show what value it evaluates
to under dyn scoping