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PSI Check in 1

Intro to C

Part 1:

psi> 23

psi> 7

psi> 1

psi> $error{invalid operation: --}

psi> 11

psi> 8

psi> #t

psi> $error{arithmetic-error: division by zero: 0}

psi> 117

psi> $error:{unpaired parenthesis}

psi> -2

psi> 4294967296

psi> {type-error: non-number in +: #t}

psi> $error{arithmetic-error: division by zero: 0}

psi> {type-error: non-number in *: #t}

psi> $error{op-error: invalid operator first: 3}

psi> Quitting...

Part 2: I used a Singly Linked List. It seemed to be the most suggested in the docs provided and I was most familiar with it. I likely should have made an actual "tree" data structure to full align with the AST. However I want to continue to work on making the SLL work for the rest of the phases since that took a ton of my time.

Part 3:

There are some leaks. I'm working to redo a lot of my work since right now it feels like I'm chasing errors and leaks and trying to catch them retroactively. This is confirmed by Valgrind. I have a free_list(pval * x) method that recursively frees. However I must be leaking in my recursive calls when something is allocated but not cleaned up, lost after the call returns. Actively working on this.