

LR Parsing

input is read from left to right

trees are constructed from top down

- + intuitive
- can't handle left-recursive grammar

$\langle \text{expr} \rangle ::= \sqrt{\text{In}} \mid$
 $\text{after}(\langle \text{expr} \rangle) \mid$
 $\langle \text{var} \rangle \mid$
 $\text{let } \langle \text{var} \rangle = \langle \text{expr} \rangle \text{ in } \langle \text{expr} \rangle$

- ① "parser generator" - a tool for writing parsers
- ② LR parser

LR Parser

handle left recursion! operates using a pushdown automaton

trees built from bottom up
input read from left to right

(gist)

two actions: ① reduce - compact items on stack
② shift - move input token onto stack

- information:
- ① stack
 - ② tokens
 - ③ rules in a 2d grid

